

FINANCIAL TIMES

EUROPE'S BUSINESS NEWSPAPER

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NEWS SUMMARY

GENERAL Protests grow at French steel plan

Steelworkers in the Lorraine region yesterday blocked the Paris-Luxembourg railway line and raided the local Socialist Party headquarters at Metz...

BUSINESS Kleinwort buys U.S. primary dealer

KLEINWORT BENSON, the UK's biggest merchant banking group, is to buy ACI Government Securities (AGS), a U.S. government bond dealer...

Jerusalem raid may signal shift in guerrilla tactics

ISRAEL is braced for a new wave of guerrilla attacks following the unprecedented shoot-out in central Jerusalem yesterday between Arab guerrillas and Israeli civilians and police...



Mr Yitzhak Shamir

other was captured while trying to drive through a road block on the road to Bethlehem. Police described the shoot-out as a new type of attack which we have not encountered before...

Vatican Bank probe widens

THE INVESTIGATION OF Archbishop Paul Marcinkus, chairman of the Vatican's bank, on allegations of impropriety in the handling of a 1972 loan to a former director of the collapsed Banco Ambrosiano...

Cable TV 'may fail'

Multi-channel cable TV may be a commercial failure in Western Europe unless government policies change radically to allow cheaper systems and restrict the industry...

Chilean reshuffle

Chilean Finance Minister Carlos Casceres lost his job in a reshuffle of Gen Augusto Pinochet's economic team, the fourth cabinet change in less than a year.

Punjab tension grows

India's four northern states face disruption and the risk of violence today following the killing of a leading opposition party leader in the Punjab.

Poles urged to vote

Polish authorities began a big campaign to counter opposition efforts to encourage a mass boycott of local elections in June, the first national poll since the imposition of martial law.

Hong Kong hopes

China believes it will agree with Britain on the future of Hong Kong by September, Foreign Minister Wu Xueqian said, British Foreign Secretary Sir Geoffrey Howe visits Peking this month for talks.

Swazi coup foiled

Swaziland said an attempted coup by a "gang of four" - two Cabinet ministers, an MP and a royal prince - had been foiled. In a separate incident, seven African National Congress members were arrested.

Bolivian deal

Vice-President Jaime Paz Zamora's party was expected to return to Bolivia's coalition government after being offered four Cabinet posts.

Cyprus peace plan

Washington and Moscow are both backing a UN compromise peace formula to reduce Greek-Turkish tension on Cyprus.

U.S. Unesco probe

Four U.S. investigators began an inquiry into claims of financial mismanagement and personnel malpractice at Unesco, which could influence other western countries to follow the U.S. out of the organisation.

Apartheid anger

Coloured (mixed-race) Peruvian soccer player Augusto Palacios, who went to work in South Africa this year, said he would leave because he has been banned from living in the same house as his white wife.

Volvo opens construction merger talks

BY KEVIN DONE IN STOCKHOLM AND TERRY DODSWORTH IN NEW YORK

VOLVO OF Sweden and Clark Equipment of the U.S. have opened negotiations that might lead to the merger of their construction equipment operations.

Madrid to buy Roland missile

By David White in Madrid

SPAIN HAS decided to buy the Franco-German Roland anti-aircraft missile in preference to British Aerospace's Rapier, in a deal worth Ptas 300m (\$201m).

Alfonsin rejects austerity as debt rescue condition

BY JIMMY BURNS IN BUENOS AIRES

PRESIDENT Raul Alfonsin has again warned that Argentina will not be forced into a fierce programme of retrenchment as a condition for the renegotiation of its \$43.6bn foreign debt.

Olivetti plans retail network for Europe

BY OUR MILAN CORRESPONDENT

OLIVETTI, Europe's leading data processing equipment company, is planning to set up a network of retail outlets in Europe, specialising in the sale of Olivetti personal computers and related software.

Ford of Europe chief quits

By Kenneth Gooding in London

FORD OF Europe chairman Mr Edward Blanch resigned unexpectedly yesterday in a move that took his colleagues by surprise.

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# EUROPEAN NEWS

## Pan Am pulls out of Afghan line

By Leslie Collett in Berlin

PAN AM has relinquished a 49 per cent share in Ariana Afghan Airlines, which it helped to create. The move followed cancellation last year by Ariana of contracts with Pan Am and McDonnell Douglas to provide crew training for the airline's Boeing 727-100s and DC10-30s and is a direct result of the Soviet occupation of Afghanistan.

West Germany's Lufthansa airline and Swissair have taken over the refresher training of Afghan pilots under contracts signed last year.

A Swissair spokesman said its contract to provide up to 10 Afghan pilots with 100 hours of simulated training annually for the DC10 is expected to be automatically extended for another year. Lufthansa too said it is giving 100 hours of training this year to Afghan pilots of the Boeing 727s.

The refusal by the U.S. Administration to give visas to Afghan airlines' pilots last year is understood to have caused Kabul to cancel its contract with Pan Am which dated back to the 1950s, as well as the contract with McDonnell Douglas. The DC10 owned by Ariana is claimed to be a favourite with the Soviet military on the Moscow-Kabul route as it is an all-freight version.

## Weinberger pledge on Turkey aid

BY DAVID BARCHARD IN CESME, TURKEY

PRESIDENT Ronald Reagan's administration yesterday promised Turkey to do its best to persuade the U.S. Congress to withdraw a decision by the Senate Foreign Relations Committee last week to block \$215m (€150m) of Turkey's \$924m aid package for next year unless the Famagusta new town of Varosha in Cyprus is handed back to the Greek Cypriots.

The decision, taken last

week by an 11-7 majority, has been bitterly resented by Turkey. The vote followed the unilateral declaration of independence last November by the Turkish Cypriots in the northern sector of the island.

Mr Caspar Weinberger, the U.S. Secretary of Defence, who is here for the Nato Nuclear Planning Group meeting today and tomorrow, met his Turkish counterpart, Mr Zeki Yavuzturk, for about an

hour yesterday morning. According to officials, the two men concentrated almost entirely on the aid question. The U.S. Defence Secretary is understood to have repeated that the Reagan Administration depletes the proposed cuts and will do its best to have them revoked. He warned, however, that the struggle might be long and hard.

Mr Yavuzturk, according to Turkish officials, repeated

Ankara's view that U.S. military aid is given because of Turkey's contribution to the overall Western defence effort and that it should not be linked to extraneous issues such as Cyprus. In the Turkish view, U.S. aid is unconditional except as stipulated in the 1980 defence agreement with Washington. U.S. officials here are still sanguine about the chances of having the aid cut reversed.

## Moscow to push for UN Cyprus plan

BY ANDRIANA IERODIACONOU IN ATHENS

THE SOVIET Union is to advise Turkey to accept the latest United Nations compromise peace formula for Cyprus, senior Cypriot Government officials in Nicosia said yesterday. The UN formula is also backed by Washington, which hopes to reduce Greek-Turkish tension in Nato through progress on the Cyprus issue.

The Soviets are understood to have disclosed their intentions during a five-day visit to Moscow last week by Mr Andreas Christofides, the Cyprus government spokesman. Soviet Foreign Ministry officials reportedly said they will advise Turkey to accept the UN proposal through the Soviet embassy in Ankara and the Turkish embassy in Moscow.

Moscow has not been actively involved in the Cyprus issue since 1975, when it proposed an international conference to settle the problems of the divided eastern Mediterranean island. Turkey dispatched troops to Cyprus, which has an 18 per cent Turkish-Cypriot minority, in 1974 after a coup organised by the Greek military junta against the Makarios Government.

The Soviet proposal was opposed by the West. But it became a part of the Cypriot Government's policy of "internationalising" the Cyprus issue. This meant raising the issue before international organisations and conferences in the hope of generating support to end the Turkish military occupation of the northern third of Cyprus.

The latest UN peace proposals, which were presented by Sr Javier Perez de Cuellar, the UN Secretary General, to the Greek Cypriots and Turkish Cypriots in March, reportedly call on the Cyprus Government to abandon internationalisation.

But at the same time they require the Turkish Cypriots to stop the implementation of last November's declaration of an independent state in the occupied north of Cyprus.

The independence move revived speculation on the "double enosis" scenario for Cyprus - the permanent partition of the island into two zones, one controlled by Turkey and the other by Greece.

The Soviet Union is understood to be opposed to such an arrangement, which would effectively mean

the control of Cyprus by two Nato powers.

● Egypt and Cyprus agreed today to restore diplomatic relations severed in 1978, Reuter reports from Cairo.

Mr George Lacovou, Cyprus Foreign Minister, told reporters after a meeting with Egyptian President Hosni Mubarak: "We have agreed in principle to re-establish diplomatic relations in the very near future."

He said the decision reflected "the close good relations that traditionally exist between our two peoples."

Diplomatic ties were broken in 1978 after the killing in Nicosia of prominent Egyptian writer Mr Youssef Sebai by two Palestinians.

## Double or quits choice looms for French Communists

BY PAUL BETTS IN PARIS

WILL THE Communists leave the Government this time? This has been the main question on the front pages and the television news, the main focus of every political conversation since the Mitterrand Government announced its tough steel industry restructuring plan last week. The independent left-wing daily "Liberation" put it succinctly yesterday: "The Communists, it's double or quits."

Ever since the Communists joined the Socialists as the junior member of the French left-wing governing coalition, the question of their departure from Government has regularly come up. This time, however, most political observers agree that the steel plan, involving up to 25,000 layoffs between now and 1987, has put the Communists on the spot.

M Georges Marchais, the Communist secretary general, has called the steel plan "a tragic error" and has urged steelworkers in the depressed Eastern steel region of Lorraine to fight it. He has also asked the Government to reconsider the restructuring programme.

However, M Marchais has carefully avoided speaking

about the Communists pulling out of the Government so far. The party has adopted an extremely cautious approach, limiting its attacks to the steel plan. But the Communists are clearly in an extremely delicate situation. They have already had to swallow plans for large-scale layoffs in the coal and car industries. Since the left has come to power in France, the country has had to accept unpopular austerity measures.

Unemployment has continued to increase, and the Communists have been big losers in local elections. Moreover, they have had to put up with President Francois Mitterrand's firm stand in favour of the deployment of new U.S. nuclear missiles in Europe and his opposition to the European peace movement.

### Criticisms

In recent weeks, the Communists have sharpened their criticisms of government policy, especially in the industrial sector. But these criticisms have always been followed by statements expressing the party's commitment to the coalition. It has been a strategy of one foot in the Government and one out to try to make the biggest political capital possible out of the Left-wing alliance. This strategy has annoyed the Socialists and on several occasions M Pierre Mauroy, the Prime Minister, and President Mitterrand himself, have expressed their irritation.

The Communists are fully aware they have more to lose than to gain from leaving the Government. Without the Communists, the Socialists would still continue to have a comfortable parliamentary majority. The Communists, on the other hand, would lose all the advantages of being a part of the Government with four Ministers and the ability to place their people in key administration jobs both at national and local levels.

But with the steel restructuring controversy, it has become increasingly questionable whether the Communists can continue cruising along with their strategy of one foot in and the other out, trying to pick up votes from as wide a spectrum as possible of the discontented Left.

If the protests in Lorraine continue, the party will have to retain its credibility as the traditional defender of working class interests, and this may ultimately mean an open split with the Socialists.

### Steady decline

What makes matters even more difficult for the Communists is that the party is involved in a key internal debate about its future and future leadership. Under M Marchais, the party has been steadily declining, but he is trying to hold on to his position.

In recent months, he has attacked and sought to undermine his main rival and former protégé, M Charles Fiterman, the Transport Minister. M Fiterman backed by the party's younger technocrats, has proved a competent member of the French Government. For most, he is the leading candidate to succeed M Marchais as Secretary-General at the next party congress due to be held in the spring of next year.

A decision to leave the Government is therefore bound to have major internal party repercussions. What is more, neither M Marchais's camp nor the Fiterman faction favour pulling out of the Government at this stage, although M Fiter-



COMMUNIST RIVAL: M Charles Fiterman (above) and M Georges Marchais. A split from the coalition could throw the party into chaos



man would have to leave his ministry by the autumn if he is to run as the next Secretary-General of the party.

President Mitterrand appears to have another calculated gamble that the Communists would find it politically difficult to leave at this stage. His steel plan has caused rifts in his own Socialist Party but has also been applauded as a sign of "economic courage" of the Government's commitment to put its economic and industrial house in order.

### Political losers

Although President Mitterrand is clearly expecting a growing backlash from the Communists, he is also calculating that in the end the big political losers can only be the junior members of the coalition. The Communists are expected to win about 12 per cent of the French vote in next June's European Parliament elections, according to the latest opinion polls. Should they go below 10 per cent, they would be in serious political trouble.

President Mitterrand has another important card up his sleeve. He has announced he intends to visit Moscow this year to meet Mr Konstantine Chernenko, the new Soviet leader. M Marchais was reported to have been on good terms with Mr Andropov, the late Soviet leader, but his relations with Mr Chernenko are said to be much cooler. An eventual visit to Moscow by President Mitterrand at a time when the Socialist President has said he wants to maintain a dialogue with the Soviet Union could thus limit M Marchais's room to manoeuvre.

At the end of the day, the steel restructuring plan could turn out to be another major squeeze in what many suspect is President Mitterrand's eventual intention to make the Communists an increasingly weak political party.

The Communists know of this suspicion, so a decision to leave or not to leave the Government is made even more difficult. The poker game, in a sense, has just started.

## Pressure grows in Dutch cabinet for extra cuts

BY WALTER ELLIS IN AMSTERDAM

THE DUTCH coalition Government has begun fighting an internal battle on two fronts, and its long-term survival is far from guaranteed.

Last week, the hardest pressure was being applied on the nuclear weapons front, as the U.S. sought to persuade the Dutch to accept cruise missile deployment, and the Soviet Union to persuade them to reject it.

This week, the economic battle is hotting up. Mr Onno Ruding, the Christian Democrat Finance Minister, has been joined by Liberal members of the cabinet in demanding record spending cuts next year.

Other Christian Democrat ministers, however, are opposed to any enlargement in the scale of proposed cuts beyond the Fl.7bn (£1.6bn) agreed when the coalition was formed in 1982.

Mr Rudi Lubbers, the Prime Minister, and a Christian Democrat, is caught between the two. He is aware of the need to continue cost-cutting. He also knows that Mr Ruding's plan for an additional Fl.3bn in cuts next year will be extremely unpopular in the country and could cause grave electoral problems for the coalition.

The Liberals, who are generally much tougher than their cabinet partners on economic matters, did not accept Mr Ruding's line without question.

Mr Ruding's argument for Fl.10bn is that, without it, the Government will not achieve its key target of a public sector borrowing requirement by 1987 of 7 per cent of net national income.

The Planning Bureau's most recent report, published just over a week ago after considerable delay, contends that the 7.4 per cent deficit target is out of reach and that, partly as a result of government strategy, unemployment in the Netherlands is going to exceed 12m by 1987—that is, nearly 20 per cent of the workforce.

The cabinet's problem arises from the fact that reductions in public expenditure have proved difficult to sustain. A batch of social welfare cuts which was to have taken effect in July has been postponed, and a 3 per cent drop in public sector wages was only introduced in January after seven weeks of strikes up and down the country. New talks with the public sector unions on further cuts for 1985 and 1986 have broken down, and once again there is a hint of grapeshot in the air.

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EUROPEAN NEWS

Threat of labour conflict grows in Sweden

BY KEVIN DONE, NORDIC CORRESPONDENT IN STOCKHOLM

THE RISK of widespread conflict in the Swedish labour market grew yesterday as leaders of the country's blue-collar workers warned that sympathy actions in support of workers in low-paid sectors unable to push through wage settlements alone.

At the same time in the public sector, where most settlements have been completed, the union representing academic and professional employees has warned that it intends to call 10,000 teachers, prosecutors and other senior civil servants out

on strike from next Monday in support of a pay claim for senior teachers. The state employment agency replied yesterday with a more far-reaching threat to lock out 23,000 teachers at senior schools and the universities together with a further 1,800 state employees from next Tuesday.

The conflict could still be delayed by some form of mediation, but if it goes ahead it could lead to more than 500,000 pupils and students being without teachers.

So far, this year's wage round has concentrated on the success of the public sector unions and

some of the biggest unions operating in the private sector in pushing through wage deals which clearly threatened the Government's economic strategy. This is aiming to reduce Sweden's inflation and maintain the country's competitiveness in foreign markets.

This strategy is vitally dependent on moderate wage settlements. The Government had earlier warned that total labour costs could not be allowed to rise by more than 6 per cent if it was to meet its target of reducing inflation to only 4 per cent by the end of the year.

Mr Olof Palme, the Prime

Minister, warned at the weekend that the Government was not giving up its fight against inflation. Economic policy would be tightened if it was shown that inflationary wage settlements threaten economic targets.

The main threats to labour peace are emerging in the lower paid areas, such as retailing and the clothing and textiles industry, where workers are finding it impossible to push through settlements as high as those achieved in sectors such as engineering and building.

Despite a long tradition of

centralised wage bargaining in Sweden, the employers have managed to gain negotiations sector by sector this year. Leaders of LO, the blue collar workers' trade union confederation warned yesterday, however, that the more powerful unions would not allow the low paid sectors to be pushed aside.

The first test of strength is likely to come in the retailing sector where wage negotiations have already broken down. Union leaders were meeting last night to consider a call for strike action and sympathy actions from other sectors such as the transport workers.

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BREAKAWAY TO A GREAT WAY OF LIFE.

Ireland will use price controls to curb wages

By Brendan Keenan in Dublin

THE IRISH Government is to use the country's price controls mechanism to try to enforce the seven-month pay freeze this year, despite the lack of success of such methods in the past.

The Government's aim is to bring Irish inflation down from the present 9 per cent to 5 per cent next year. It wants the pay freeze to be followed by increases of less than 5 per cent over the following 12 months.

The Government has already said it will not give public-sector workers a pay rise this year. It now says the Prices Commission, which controls the price of most goods in Ireland, will not allow increases based on pay rises conceded within seven months of the expiry of the last wage agreement.

Union leaders reacted angrily to the plan, describing it as "interference in the process of free collective bargaining." Mr John Carroll, president of the Irish Congress of Trades Unions, said he would recommend withdrawal of union representatives from the Prices Commission if it was used to enforce pay restraint.

EEC seeks united stand on IDA funding

BY JOHN WYLES IN LUXEMBOURG

NINE OUT of ten finance ministers of the European Community agreed yesterday to try to sidestep the U.S. refusal to increase funds available to the International Development Agency for helping the world's poorest nations.

West Germany will continue to ponder its position until the middle of next week, but other ministers stressed the importance of a united EEC position at the next meeting in Washington on April 13 of the International Monetary Fund's development committee.

It is hoped that the Ten will agree to suggestions supported by the IDA for a supplementary funds available for lending in

(£2,060bn). This would have the effect of raising the IDA's total available for lending in the Third World from \$9bn to \$12bn.

The U.S. has agreed to contribute only on the basis of a \$9bn funding and, as yet, Japan is said to be reluctant to pay into a special supplementary fund.

Mr Nigel Lawson, Britain's Chancellor of the Exchequer, said yesterday that he and his colleagues hoped that a united Community position—assuming West German support—would have some impact on Japan's approach. EEC ministers considered the ceiling the U.S. is trying to impose as "inadequate and a matter for regret," added

The total value of duty-free goods which travellers may take from one EEC country to another will be raised on July 1 from Ecu 210 (£121) to Ecu 250 (£162). The cigarettes and alcohol allowances, however, will remain unchanged until 1987.

Mr Lawson. He doubted whether there would be a change in the U.S. position.

Ministers also agreed to the statement to be made on behalf of the ten at the IMF Interim Committee meeting in Washington on April 12 by M Jacques Delors, the French Finance

Minister and current president of the Council of Finance Ministers.

This will not contain any great surprises and M Delors conceded yesterday that there was still no common EEC position in support of his view of the need for a "modest" new issue of special drawing rights.

Two hours of lunch was also devoted to a review of the deadlocked negotiations on the British budget problem. Mr Lawson said afterwards that the "amicable" discussion had revealed general support for the complex system for cutting Britain's payments to the EEC budget which was discussed by foreign ministers last week.

Insurance group yields to competition rules

BY PAUL CHEESBROUGH IN BRUSSELS

EUROPEAN COMMUNITY competition rules have been formally applied to the insurance sector for the first time. The European Commission has imposed on a consortium of Italian insurers, Nuovo Cegam, a system of independent premium fixing.

After changing its rules to permit each of the 15 companies involved in the consortium to fix its own premium levels, the consortium is being granted a 10-year exemption from the general principle in the Treaty of Rome against companies con-

cerning their activities. The European Commission, which administers Community competition rules, yesterday announced that it was dropping legal proceedings.

The case is the first of several in the insurance sector on which the Commission will be ruling over the next few months. The pending case nearest to decision concerns fire insurance in West Germany.

Commission officials see freedom to set premiums and freedom of access to the market as the two main obstacles to an

open insurance market.

The Italian action, and the others which will follow, are therefore the legal concomitant to the political problem of ensuring open access.

Both the British Government and the Commission have consistently urged the dropping of restrictions which hinder an insurance company from one country starting operations in another within the EEC.

Although the Treaty of Rome provides for companies to establish insurance operations any-

where in the EEC, the application of the general principle has been blurred by the right of governments to settle the conditions for operation. Hence, the struggle in which the UK and the Commission have engaged at the Council of Ministers in recent years.

Commission policy on premiums, as expressed in the Nuovo Cegam case, is that there is no objection to companies sharing technical knowledge on risk-taking, for example, but they must be free to set their own premiums.

Soviets to use more raw gas

By David Buchan, East Europe Correspondent, in London

THE SOVIET Union has decided to use more of its huge gas reserves as feedstock for chemical product exports rather than try to sell additional amounts of raw gas in Western Europe where there is little demand for it, an official has indicated.

Mr Vladimir Filanovsky, head of the oil and gas department at the State Planning Committee (Gosplan), said in a recent Tass interview that the Government was taking the advice of specialists "who suggest that natural gas deliveries abroad should not be expanded."

The implication of Mr Filanovsky's comment was that the Soviet Union had decided not to pursue the idea of building a second trans-Siberian gas pipeline, originally scheduled during the 1986-90 Soviet plan.

The present weak demand in Western Europe has left Moscow with orders of some 28bn cubic metres (bcm) a year

Nuclear plant pact for Czechs and Austrians

VIENNA - Czechoslovakia and Austria have decided to begin implementing cross-border co-operation this year to deal with any future accidents at their nuclear power stations.

The agreement, originally drafted in 1982 in Vienna, will become effective on June 1, the two sides announced at the weekend. The arrangement is the first of its kind between a Communist bloc state and one in West Europe.

The move follows talks last week between Czechoslovak officials and Herr Erwin Lang, Austrian Foreign Minister, in Prague.

Each side will be committed to enforce similar laws at home on radiation safety standards and to exchange information on the development of their nuclear programmes.

It will also expand existing contractual ties between the two countries, Czechoslovak sources said. Austria is heavily dependent on its East European neighbours - Czechoslovakia among them - for fuel and electricity supplies.

The agreement also provides a basis for co-operation to solve or help solve unexpected problems at Czechoslovak and Austrian nuclear installations, the sources said.

The plan to implement the agreement follows allegations by both countries that each is causing pollution problems in the other, and concern in Vienna that Czechoslovak nuclear plants are too close to Austrian territory.

Czechoslovakia will soon have four big nuclear power plants near the Austrian frontier. A 440 MW, Soviet-designed station already operates at Bohumice, 55 km inside Czechoslovakia.

Another is under construction at Dukovany, 35 km from the border, and two more plants close to the border are on the drawing board. Czechoslovakia aims to produce one-third of its electricity needs from nuclear power by 1990.

Austria has only one nuclear power station, at Zwentendorf, 48 km north-west of Vienna. Reuter

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OVERSEAS NEWS

Zimbabwe makes a hard, inevitable economic choice

BY TONY HAWKINS IN HARARE

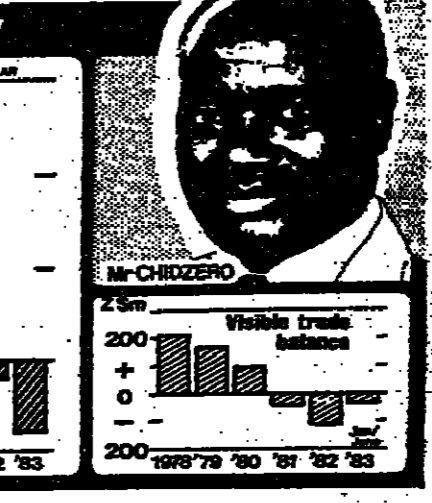
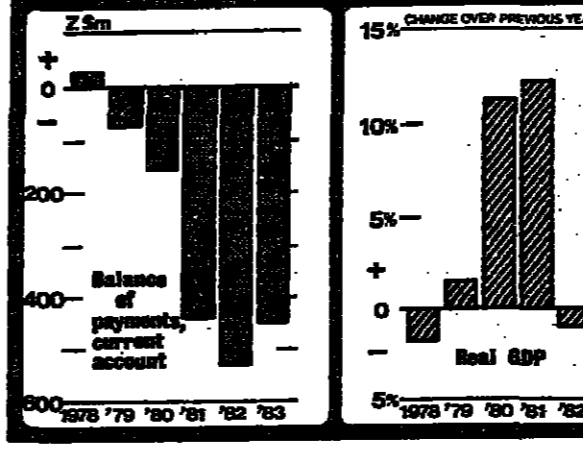
WHEN Dr Bernard Chidzero, Zimbabwe's Finance Minister, last week announced sweeping new exchange control measures...

THE ZIMBABWE Government's plans to acquire its citizens' foreign investments, requiring the proceeds to be invested in Government bonds...

Barlow Rand and Gold Fields of South Africa, were bought, Mrs Mann said, before she left the country in 1978. She claimed in an affidavit that on hearing of the Zimbabwe Government's plans she asked for the share certificates...

promotion policies should increasingly bear fruit over the next two years as world trade regains momentum, while after three successive drought years, agricultural output, especially grain production, should recover strongly in 1985.

Zimbabwe economy



Swaziland says it has foiled 'gang of four' coup bid

SWAZILAND has announced the foiling of a coup attempt and in a separate incident, the arrest of seven armed members of the African National Congress on the Swaziland/Mozambique border.

an impressive 28 per cent reflecting the end of the war, the lifting of sanctions, lower taxes, higher wages and a superb farming season in 1981. But with the world recession and the first drought in 1982, output started to fall and has since declined to a negative rate of about 5 per cent.

ing onto the labour market at a rate that has now reached 80,000 annually. Against this background, the deflationary medicine that Zimbabweans have had to swallow in the past two years, and have still to digest in 1984, has worrisome implications.

such political sacred cows as free education. This hardly seems a viable option in an election year. There is also a need to boost investor sentiment at home and abroad; last week's measures must have severely damaged Zimbabwe's investment image.

Yesterday's announcement of the ANC arrests on the Mozambique border last week may well have been timed to demonstrate good neighbourliness after the weekend announcement that at least agreed to the accord in an exchange of letters two years ago in February 1982.

India faces greater unrest in North

THE FOUR most northern states of India face widespread disruption and the risk of violence today as a result of mass strikes and demonstrations called by political parties in protest at the killing yesterday of a leading opposition party leader in the Punjab.

Howe likely to meet Deng on Hong Kong

THE GROWING likelihood that Sir Geoffrey Howe, the British Foreign Secretary, will have a personal meeting with Deng Xiaoping, the Chinese leader, over the next few months, has been confirmed by a statement on Hong Kong's future will conclude the talks.

about the course of the talks but add that the substance will depend on the outcome of his meetings with Chinese leaders. They say the meetings will discuss the progress made in the negotiations and "what we do next."

Observers both in Peking and Hong Kong increasingly believe that details of a basic agreement between the two countries on the future of the British colony will now be released well in advance of September to enable debate in Britain and Hong Kong before the final signing.

The announcement, which shocked the colony and caused a significant drop in its value, has been seen as a further measure of the nervousness in Hong Kong about the future. But British officials, who irritated by Jardine's timing say it will not have a significant effect on the course of the negotiations.

Philippine job losses increase

NEARLY 65,000 Filipinos have lost their jobs in the past four months as a result of the growing impact of foreign exchange shortages, according to the Ministry of Labour and Employment.

China looks to competition to cut construction costs

CHINA HAS opened major construction projects throughout the country to competitive bidding in an attempt to cut costs. Contracts for capital construction will now be decided by tender among different government construction departments and collectively owned building units.

Oil production grows

PEKING - Chinese oilfields pumped 205.66m barrels of crude oil from January 1 to March 30, 5.7 per cent more than in the same period last year, the Petroleum Ministry said.

Oil production grows

China's national daily crude output is now 2.28m barrels, Reuter

Oil production grows

China's national daily crude output is now 2.28m barrels, Reuter

Advertisement for the International Herald Tribune, featuring a coupon for £2 and £2.70, and a headline about the Lebanese Army collapsing in Beirut.

Advertisement for WPRF (World Political Risk Forecasts) Political Risk Services and Conference, including details about the conference and contact information.

Oil production grows

China's national daily crude output is now 2.28m barrels, Reuter

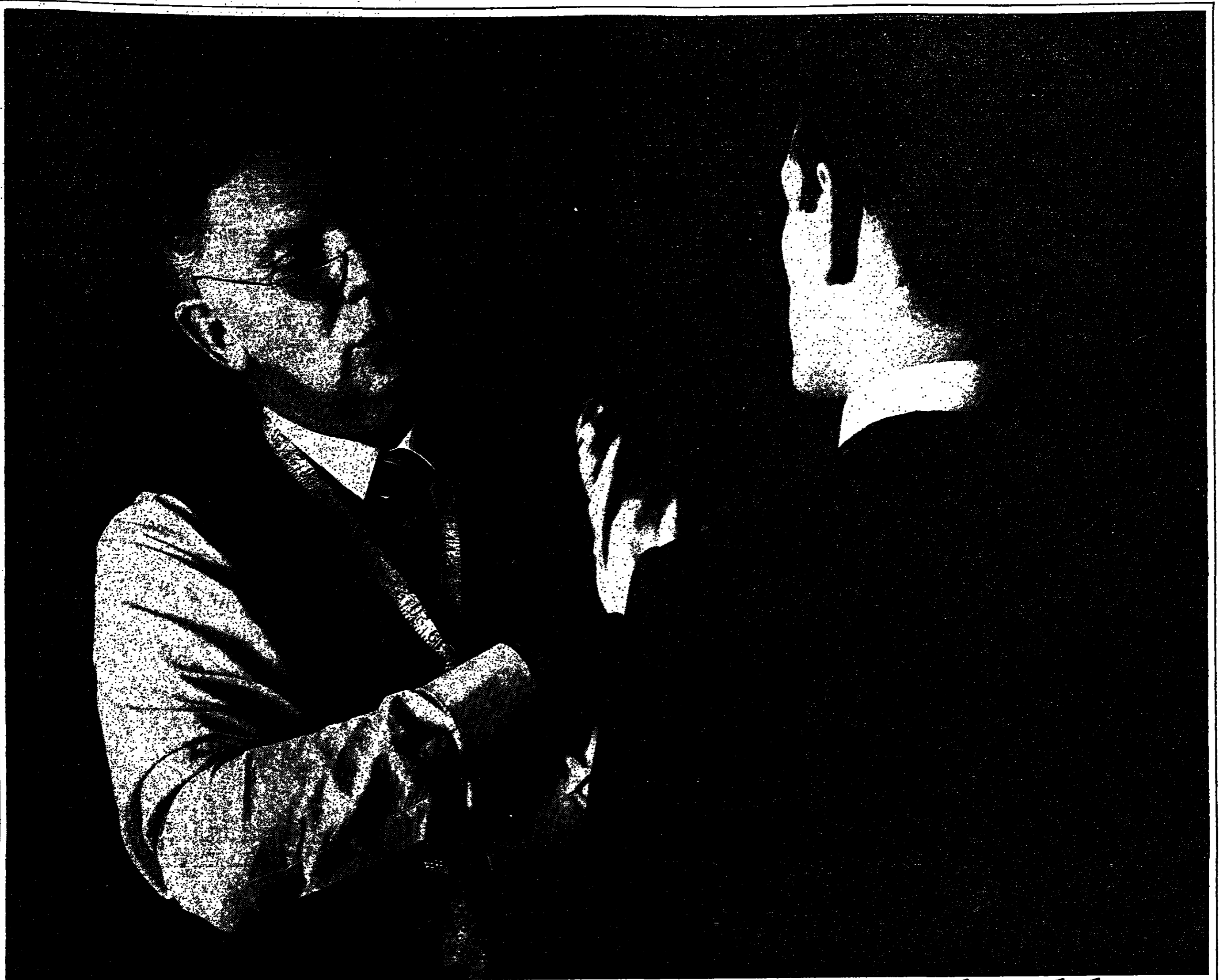
Oil production grows

China's national daily crude output is now 2.28m barrels, Reuter

Oil production grows

China's national daily crude output is now 2.28m barrels, Reuter

Advertisement for 'Hungary Today' exhibition, featuring a stylized 'M' logo and details about the event.



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AMERICAN NEWS

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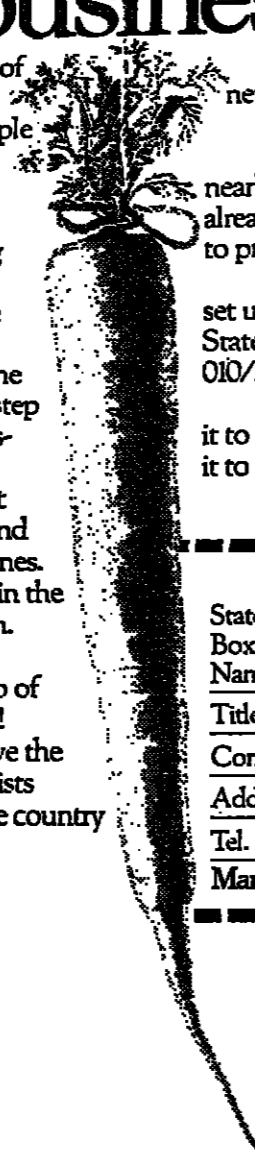
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## Bolivian Left set to rejoin coalition

BY OUR LA PAZ CORRESPONDENT

PRESIDENT Hernan Siles Zuzo of Bolivia was yesterday reported to be on the brink of success in his bid to tempt the left-wing MIR or Movement of the Revolutionary Left back into his government and into supporting a package of emergency economic measures.

The MIR quit the Government 14 months ago over differences about economic policies, though its leader Sr Jaime Paz Zamora continued in his post of Vice-President. The MIR is understood to be willing to return to the Government in exchange for four ministries in an enlarged cabinet. Since the MIR departure from his 18-month-old government, President Siles has been governing with the help

of his own left centre MNRI, the Communists, the Christian Democrats and independents. Senior officials of the MNRI and the MIR emerging from the talks were optimistic however, that the MIR will return to government.

The likelihood of a breakthrough emerged after three days of talks between Sr Paz and President Siles on ways of overcoming the economic crisis and the terms under which the MIR might rejoin the Government.

The president's planned economic package will reflect pressure from the International Monetary Fund to reduce inflation now running at about 350 per cent a year, and to tackle arrears in servicing the

country's \$4.5bn (\$3.1bn) foreign debt. If it is too harsh for the MIR's rank and file to accept, the package could wreck reconstruction of the coalition.

The package is likely to include a doubling of the legal minimum salary, to about Pesos 90,000 (225) a month, as well as removal of subsidies on certain basic foods plus sharp increase in the price of petrol and other fuels.

There was a 24-hour general strike during the weekend by way of warning from the main trades union that the Government should do nothing to reduce further the miserable standard of living of most Bolivians.

## Uruguay records trade surplus

By Andrew Whitley in Rio de Janeiro

URUGUAY'S imports last year fell to half their 1981 level, helping it to achieve a trade surplus of \$309m (£213m), the first since 1976.

Figures released last week by the central bank in Montevideo showed that in 1983 Uruguay exported goods worth \$1,018m, up 8.2 per cent on 1982. Imports fell by over 36 per cent to US\$706m.

An increase in exports of primary goods - meat, wool, rice and sea food - to \$364m compensated for a decline to \$550m in so-called non-traditional exports, such as textiles.

Other major declines in imports were recorded by chemical products, down 17 per cent, machines and electrical equipment, down by 42 per cent, and transport vehicles, which registered a 75 per cent fall.

However, in the first two months of this year, preliminary figures from the central bank showed a slight decline in exports and an unwelcome 20 per cent jump in imports.

The sharp improvement in Uruguay's trade balance last year was in line with the trend observed by the Inter-American Development Bank for the whole of Latin America. A major report released by the IDB last week showed, among other things, that Latin America obtained a trade surplus with the rest of the world of \$25.4bn in 1983, three times greater than the previous year.

## New Chile Finance Minister

By Mary Helen Spooner in Santiago

Sr Carlos Caceres, Chile's Finance Minister, has been removed from his post in a reshuffle of Gen Augusto Pinochet's economic team, the fourth Cabinet change in less than a year.

The new Finance Minister is Sr Luis Escobar, a former Deputy Minister of the Economy, and vice-president of the Hong Kong Shanghai bank branch in Santiago. His appointment does not suggest a major change in the free market economic policies the Pinochet regime has followed since the mid 1970's, but Sr Escobar is expected to follow a more expansionist line than his predecessor, arguing for more state participation in the economy.

Sr Andres Pasicot, Economy Minister, has also been removed and is replaced by Sr Modesto Colados, the outgoing Housing Minister, whose portfolio is being taken over in turn by Sr Miguel Angel Pofuje. Sr Colados is the former president of Chile's Chamber of Construction, which has pushed for greater access to credit and public financing.

The Cabinet changes come less than a week after a day of protest against the Pinochet regime, organised by opposition trade unions and political parties, and barely a fortnight after Sr Caceres returned from a series of meetings with representatives of Chile's creditor banks in the United States.

## IMF industrial output indices confirm recovery

BY STEWART FLEMING IN WASHINGTON

A STRONG 1983 recovery in industrial and manufacturing output showed a particularly marked trend in several leading industrialised countries, according to the International Monetary Fund.

The IMF says that particularly sharp 1983 recoveries took place in the U.S. and Norway, which each recorded rises of 6 per cent. These were the main contributors to last year's 3 per cent rise in the IMF's aggregate index of industrial production of 19 industrial countries to 99 (1980 equals 100). Significant increases were also recorded in Japan, the UK, Denmark and

Finland (all up by around 2 per cent).

In contrast, the indexes for West Germany and the Netherlands were unchanged.

Data available for five industrial countries for January of 1984 continues to show a rise, with indexes hitting record levels of 117 for Japan and Norway, 107 for the U.S., 104 for the UK and 103 for the Netherlands.

The IMF executive board has decided there is no need at the moment for a fresh allocation of special drawing rights, a spokesman for the West German finance ministry in Bonn said, Reuters reports.

## Bermuda plans \$8m U.S. bond purchase

BY KEITH HUNT IN BERMUDA

THE Bermuda Government intends to buy \$8m worth of U.S. Treasury zero bonds expected to be worth \$200m in 28 years' time.

The plan was revealed when Mr David Gibbons, the Finance Minister, announced recently another balanced budget for the island totalling \$188.5m for 1984-85.

Mr Gibbons, Bermuda's ex-Prime Minister, said the self-governing colony's next generation would inherit the \$200m on the 400th anniversary of permanent settling.

But the move was immediately condemned by the opposition Progressive Labour Party, whose lead-

er Mrs Lois Browne-Evans said the \$8m should be used for urgent projects, such as housing.

Government income this year is projected at \$188.5m. Spending is expected to be \$169.2m, leaving a \$19m surplus which the Finance Minister intends to switch to the capital account to balance the books.

Last year's original budget estimate stood at \$185.5m.

During his budget speech Mr Gibbons said the Government was considering allowing deposit companies to pay long-term depositors more than the statutory 7 per cent

## Texaco withdraws Mukluk plans

ANCHORAGE - Texaco has withdrawn its request for federal Government permission to drill in the Mukluk area of the Beaufort Sea, off Alaska's north slope, Government officials said.

Texaco said the plans were filed while Standard Oil was drilling the Mukluk well, so Texaco could drill a prompt follow-up well if the results of the Mukluk test warranted such action.



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**BARCLAYS**

FOREIGN EXCHANGE CENTRE

WORLD TRADE NEWS

Singapore merchant fined for copyright contempt

By CHRIS SHERWELL IN SINGAPORE

THE SINGAPORE High Court has imposed a \$82,000 (£665) fine on a local book merchant and ordered him to pay court costs in a book piracy case which will test the legal protection available to British publishers in the island state.

It has been encouraged not only by the Singapore injunction, but by several other developments in the Far East. In Taiwan, one man was found guilty of smuggling and sentenced to one year's imprisonment, suspended for five years.

MPs 'want to hit back on unitary tax'

By Our Trade Editor

NEARLY 300 of the 650 British MPs in the House of Commons are seeking legislative retaliation against unitary taxation of multinational companies by a dozen U.S. states, it was claimed yesterday.

Concern at Nigeria's debt terms

By QUENTIN PEEL, AFRICA EDITOR

THE NIGERIAN Government is due to publish tomorrow its formal proposal for rescheduling more than \$3bn (£1.1bn) in arrears of trade payments owing to uninsured suppliers.

and uninsured suppliers, while at the same time the Nigerian Government is negotiating with the International Monetary Fund for a three-year extended credit of some \$3bn.

UK mining team to visit Lima

By A SPECIAL CORRESPONDENT IN LIMA

TWELVE representatives of the Association of British Mining Equipment Companies (ABMEC) will conclude a tour of Latin American countries with a three-day visit to Lima, capital of Peru, on Wednesday, Thursday and Friday of this week.

America. Exhibitors from all over the world are expected to show exhibits demonstrating the theme "New futures in mining technology."

recovery in recent years, partly on the belief that there is still plenty of gold still to be mined in the country.

Peking tightens grip on foreign trade

By CHRISTIAN TYLER, TRADE EDITOR, RECENTLY IN PEKING

CHINA'S economic planners are tightening their grip on the country's foreign trade in an effort to clear up what they say is the confusion created by the open-door policy of the last five years.

people as before and sign contracts at events like the Canton Fair. "The honest business will find out that it is more favourable to do business with Chinese corporations, he said.

major commodities like crude oil, grain, coal and cotton. Their regional branches will continue to be responsible for delivery and settlement.

6 Officials claim that foreign friends—as the Chinese call their overseas business contacts—have been begging for the old lines of authority to be re-established?

letters from foreign friends claiming that because of decentralisation, business activities were more difficult," he said.

EEC copper sulphate 'dumping' check

BRUSSELS — The European Commission said yesterday it has launched an anti-dumping inquiry into imports of copper sulphate from Bulgaria, Hungary, Poland and Spain.

A Commission official said the EEC's Chemical Manufacturers' Association has complained that imports of the copper sulphate rose to 4,946 tonnes in 1983 from 1,812 tonnes in 1982.

undercut prices of EEC producers, causing the latter to suffer a drop in production of 37 per cent on an annual basis.

Swiss textile exports reach record high

SWISS textile exports reached a record last year, rising by 3.5 per cent to SwFr2.72bn (£700m), thanks largely to a sharp increase in sales to Germany and the UK as the industry's two leading markets, John Wicks writes from Zurich.

But officials at both national and provincial level claim that "foreign friends"—as the Chinese call their overseas business contacts—have been begging for the old lines of authority to be re-established.

But Huang said corruption of officials was "quite rare". So-called economic crimes were, as he put it, "another pair of shoes."

China's foreign trade policy, in short, remains somewhat ambiguous. The need for foreign expertise and foreign exchange persuaded the present leadership to experiment with decentralisation and adopt some quasi-capitalist incentive techniques.

But last month's announcement is a reminder that even if the door is being held open, Peking is determined to keep a firm grip on the doorhandle.

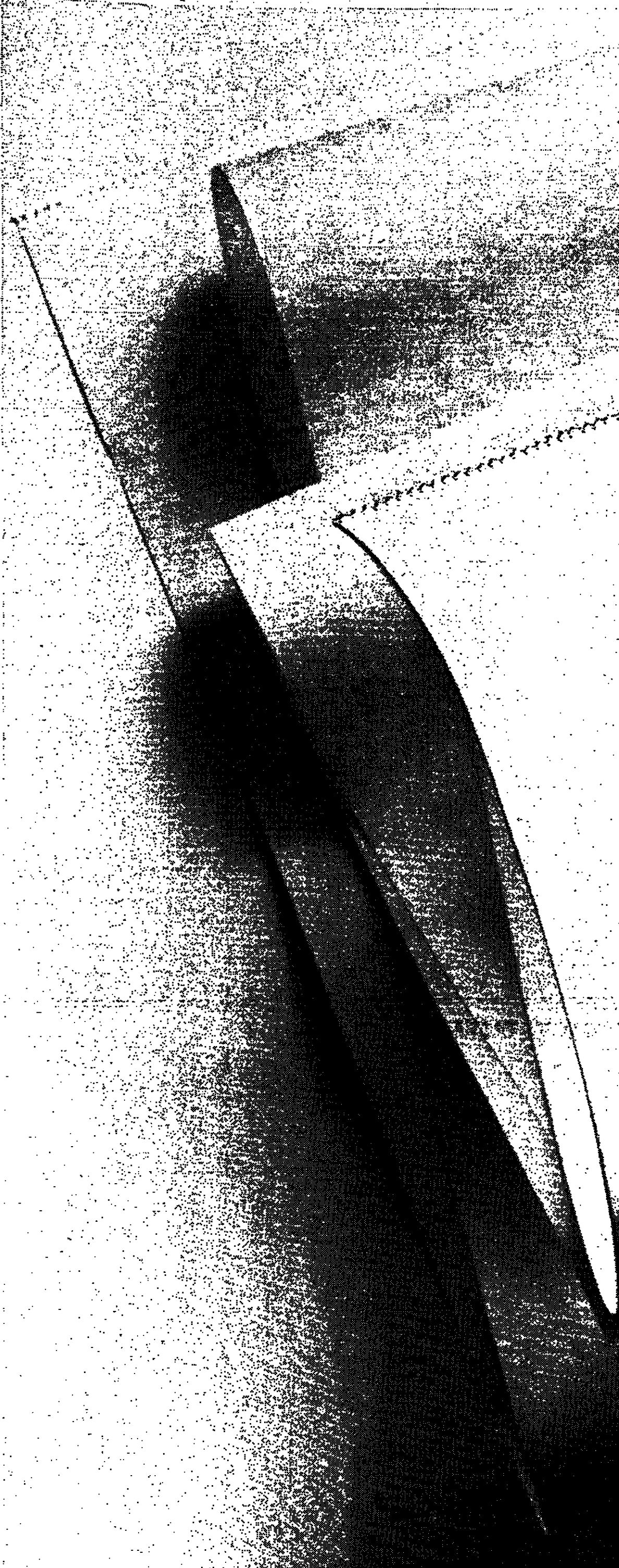
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ITT ANNOUNCES THE END OF  
THE GARBLED TELEM

Short-wave, high frequency radio is often the best, sometimes the only way for distant places to maintain communication with each other. Embassies, for example, find it a very efficient way to exchange information by telex. Properly coded, moreover, it is also much more secure than any telephonic link.

But atmospheric interference can cause occasional distortion and even total breakdown.

Now a completely new short-wave radio system which solves this problem

has been developed by ITT in Sweden. It can handle telex transmissions and voice communications.

The secret lies in the ITT computer linked to the radio. First, it predicts the best frequency for both caller and receiver, using stored information about propagation conditions and time of day. Then, if any interference does subsequently occur, it will automatically relocate to the best available frequency. This can currently take a conventional radio operator anything up to an hour

or more. The computer, on a bad day, might take a whole second.

And, because the computer ensures that the message at the receiving end is identical, letter for letter, with that sent out, garbled telexes, an occasional problem when transmitted by radio, will become a thing of the past.

Which, given the potentially critical nature of many such messages, is just as well.

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## TECHNOLOGY

EDITED BY ALAN CANE

SCIENTISTS TO START TRIALS IN COMBATING DISEASE

## Hopes for laser healing power

BY PETER MARSH

TRIALS with a new form of laser may usher in a new and effective way of treating certain cancers. The work, due to begin in May, involves a team of physicists formerly at Oxford University and medical staff at the Royal Southants Hospital, Southampton.

In the trials, patients will be treated with red light from a particularly powerful source, a gold-vapour laser. Oxford Lasers, a company started by workers at the Clarendon Laboratory of Oxford University, is one of a handful of organisations around the world to sell the hardware.

The laser will be used in photoradiation therapy—a treatment for cancer with which hospitals have experimented since the late 1970s. But application of the treatment, which kills cancerous cells while leaving healthy tissue unscathed, has been impeded by the lack of lasers that produce light of the correct wavelength at a high enough power.

Mr John Carruth, a surgeon at the Royal Southants Hospital, plans to use a 9W gold-vapour laser to treat a variety of tumours. Mr Carruth says that results from an earlier trial, using a dye laser that produced only 1W, were "excit-

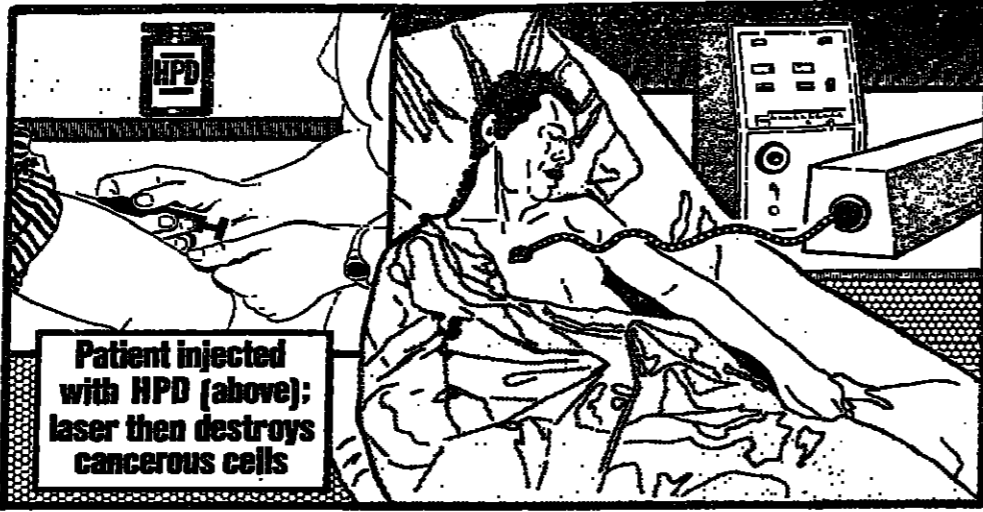
If the trials are successful photoradiation could become routine

ing and encouraging." In the trial, Mr Carruth treated patients with tumours of the brain, lung and bladder.

To treat patients in this initial work often took several hours. The tumours had to be irradiated for long periods to transfer to them enough photons to complete the treatment.

With the new laser, says Mr Carruth, times for treatment can be cut by a factor of 10. In many cases, this will make the therapy more bearable for the patient. To treat cancers inside the body, in the intestine for example, the laser light has to be "piped" by optical fibre to the site of the tumour, which can mean long spells of discomfort in the operating theatre.

If the trials with the new laser are successful, photoradiation



Patient injected with HPD (above); laser then destroys cancerous cells

therapy with gold-vapour hardware could become routine in hospitals in a few years, according to Mr Carruth.

In photoradiation therapy, the patient is first injected with a drug, haematoporphyrin derivative. After about three days, this has infused through the veins. But it remains lodged only in cancerous tissue.

When illuminated by red light (of wavelength around 600 nanometres) the drug decomposes to produce chemicals that kill surrounding cells. The therapy thus destroys malignant tissue, while leaving healthy cells untouched.

Oxford Lasers is one of only three organisations that make gold-vapour lasers, according to the company. The others are Plasma Kinetics of California and Quentron in Adelaide, Australia.

The hardware can be operated reasonably economically at high powers because of its relatively high efficiency. A 9W gold-vapour laser, which costs some £30,000, needs about 5 kW of electricity. In contrast, a dye laser of comparable output requires, at the very least, twice as much electrical power.

Gold-vapour devices belong to the same family as copper-vapour lasers. In both types, electricity is squirted through

a tube which contains a gold or copper wire. The interior of the tube is at a high temperature, of up to 1,600° C in the case of the copper hardware.

Both types of laser require relatively little energy to lift atoms from a low energy state to an excited level—which explains why the lasers offer high efficiencies. Copper-vapour lasers have a better performance than the gold devices.

They produce, says Oxford Lasers, the highest average power in the visible range than any other lasers that are commercially available. The copper devices can produce 25 W with an electrical input of only 3.5 kW.

Once they have been "pumped" to the excited state, the atoms fall in energy to an intermediate level, in the process releasing radiation in the form of laser light. Both copper and gold lasers produce light of a wavelength around 600 nm.

Oxford Lasers sees a range of applications for its copper-vapour lasers which, in their basic 10 W form, sell for about £20,000. The company has sold 15 of these systems, mainly to the UK Atomic Energy Authority for experiments in enriching the uranium fuel for nuclear power stations.

The Oxford company also plans to sell the hardware to

customers who require powerful laser beams for displays, but who do not want vast electricity bills.

Oxford Lasers started life as a classic spin-off from a university activity—it was originally based in a garage. Alan Corney, an Oxford physicist who owned the garage, persuaded other colleagues to join him and two years ago the company moved to purpose-built premises. Over the past year, the enterprise has sold lasers worth £750,000, a threefold improvement on the figures for the previous 12 months.

The company has also obtained £180,000 from the Wolfson Foundation to increase the power of its copper-vapour lasers to 100 kW. The foundation is also helping out with the costs of the cancer trials at the Southampton hospital.

Oxford Lasers's other products include excimer lasers—which produce very high powers in short pulses—and hardware that purifies the gases used in gas lasers. A big customer for the second type of product is the Ministry of Defence.

No fewer than six people from the Clarendon Laboratory are directors of Oxford Lasers. Besides Dr Corney, they are Dr Andrew Kearsley, Dr Colin Webb, Dr John Deech, Dr Tony Andrews and Mr Keith Errey,

## Photographic lessons for video industry

IF PRIZES for valour were ever awarded in the video industry, Philips last week scooped the honours in announcing its intention to market the rival VHS video format in UK this year. In facing up to the reality of the supremacy of VHS in nearly all markets of the world, Philips displayed a remarkable spirit of frankness—unlike the secrecy of the late 1970s when their V2000 system was rumoured to exist but denied by innocent-faced executives.

In the video industry, the reasons for consumer resistance to the sophisticated V2000 are well known, summed up by Philips' UK video marketing director Derek Hazell as "we offered a little too much a little too late."

There is, however, irony about last week's announcement by Philips. It intends to continue to market its own V2000 system because—without some justification—Philips regards it as "the Rolls-Royce" of video. And when the history of consumer video is written, it may be that the problems of marketing a Rolls-Royce to the underserving public will emerge as one of the causes of financial disaster. One of the very first consumer videotape systems, sold in the U.S. by Avco Embassy under the name Cartrivision, failed because it was combined with a TV set in a colonial-style cabinet priced for lawyers and oilfield owners.

Perhaps marketing men should take more notice of history, because there are many parallels to draw upon. The photographic industry, now seriously challenged by video, has travelled up and down the quality switchback—first as a medium for the amateur gentleman with time and money to spare (every plate sensitised in a portable darkroom by the user); later as a mass consumer product where simplicity rather than quality was the attraction (Kodak's slogan of the 1930s—"you press the button, we do the rest"). Then back to quality again with the arrival of reflex cameras such as the Rolleiflex, and innovations such as the 35 mm Leica.

Yet even 35 mm, now the preferred format for professionals and amateurs alike, was once regarded as inferior—even

as late as the 1960s. It has since become respectable and capable of most tasks set before it. None the less, larger format cameras such as the Hasselblad—now well over £1,500 for a basic outfit—have demonstrated that a market can exist for superior quality imaging equipment, however expensive.

The success of the Hasselblad has been predicated, however, on the recognition by potential users of the differences which prevail as the law of diminishing returns operates on pricing. An example of how discriminating the photographer has become is provided by a recent Hasselblad touring presentation called "Three Hours to Better Photography." Nearly 1,500 people in the UK have paid £7.50 a head to watch a remarkable slide show about the really finer points of photography.

## Video &amp; Film

BY JOHN CHITTOCK

Still photography has pursued a relentless course to improve picture quality

Consumer video, regrettably, is characterised by fuzzy definition and generally an abundance of picture faults. Until now, not only has the consumer not cared, but probably not noticed anyway. Hence, perhaps, the poignancy of Mr Hazell's remark "too much, too late." The VHS format was ready before V2000, with very adequate picture quality and—unlike the V2000—simplicity of operation. It was the video industry's answer to "you press the button and we do the rest."

No doubt the Hasselblad or even a modest 35 mm single lens reflex camera would have failed in the 1930s—too complicated to operate, too expensive, and too refined in technical sophistication to be appreciated by a public largely unaware of photography.

Consumer video is now, however, approaching the crossroads. When making the announcements last week, Philips predicted that annual sales of VCRs in the UK would now begin to level out. This must mean that the public will pause to catch its breath—and maybe learn more about the finer points of video, demanding better picture quality; even, perhaps, being ready to pay for it.

Still photography has pursued a relentless course in striving to improve picture quality. One example of this is Kodak's remarkable emulsions using the new T-grain technology (faster speed with finer grain and greater sharpness—usually three incompatible qualities). The Kodak disc camera, for all its apparent simplicity, is a response to a careful evaluation of how the average snapshotter was failing to get good pictures—and the disc camera is cunningly designed to minimise the incidence of these commoner faults.

The video industry would do well to consider this evolution of still photography. The next generation of VCRs must offer benefits for the discerning consumer, not with the adornments of so-called "bells and whistles" but through making real strides in picture quality. Another lesson lurks, perhaps, in the relative failure of instant photography—the picture quality just has not been good enough.

In video, and electronics generally, the Japanese have demonstrated a remarkable flair for gauging consumer needs—whereas the West has shown itself sometimes to be just too clever, too preoccupied with the product instead of the customer. The magic of Japanese technology is not in its achievement, but its relevance.

Philips has shown that it can get the technology right, and ironically might do better now by following instead of trying to lead. The time may be premature for a Hasselblad equivalent of the VCR. But if consumer video is to broadcast TV what 35 mm photography was to 6 x 6 cm in the 1960s, there is scope for Europe to learn from the failures of its photographic industry.

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## Design Joint agreement

CALMA and CAE International, two companies within General Electric (U.S.) which have so far operated more or less independently in the computer aided design and engineering areas, are now to operate jointly to develop and market a new CAE/CAD system for mechanical product design.

Basically, the databases of Calma's design, draughting and manufacturing system (BDM) and CAE International's mechanical modelling and analysis system will be coupled.

As a result, engineers will have "unmatched functional capabilities" for conceptual design, simulation, detailing and manufacturing of complex mechanical products.

## Telecomms

## Voice and data

DATABIT of Northampton is supplying British Telecom with a unit that provides two telephone circuits on a conventional two wire subscriber line, plus data transmission.

Unlike conventional analogue carrier frequency-based systems for this purpose, the digital "1+1" unit transmits the second telephone circuit in digital form. The technology the company is using is similar to that required for fully digital subscriber lines and could be the forerunner of the fully integrated service digital network (ISDN) says the company.

BT initially will use it to provide a second voice channel on a cable pair where analogue 1+1 might suffer interference in a local digital environment. More on 0604 65231.

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UK NEWS

# Cable television plans 'run risk of failure'

BY GUY DE JONQUIERES

MULTI-CHANNEL cable television is in danger of being a commercial failure in Western Europe unless government policies are radically changed, according to a report by CIT Research, an independent UK market research company.

The report warns that most new cable systems planned under existing policies will lose money or be only marginally profitable - if they ever begin operating at all - and will find it difficult to attract subscribers quickly.

At best, only 20 per cent of UK households would be linked to cable in 10 years' time. That compares with a forecast of 36 per cent which CIT made in late 1982 in a report commissioned by the British Government and several prospective cable operators.

The number of British households linked to cable television has already fallen to 1.3m, from 1.6m in 1980, as loss-making, older systems have closed. Without more commercial incentives to build new networks, the total number of subscribers could fall still further by 1990.

The report says that most European governments are jeopardising the growth of cable by insisting on systems which are too costly and technically ambitious; by ignoring the need for high-quality programming; and by shackling the industry with excessive financial and legal restrictions.

CIT is gloomy about the prospects for attracting private investment in cable in the UK unless the Government gives prospective operators much more control over the

design and construction of their systems and allows them to accept programme sponsorship.

The phasing out of 100 per cent first-year capital allowances, announced in the last budget, was also a setback. Only cable systems laid by British Telecom in its own ducts stood a chance of being profitable, unless the Government changed its policy to allow cable to be laid above ground.

The Government plans to issue 11 interim cable franchises soon, and to award more after the cable television Bill becomes law later this year. Although it wants cable to be wholly privately-financed, it is insisting on certain technical criteria for planned systems.

According to another study, published by the Broadcasting Research Unit yesterday, cable television, direct broadcasting by satellite and home video recording will be unlikely to have much impact on the BBC and independent television for at least a decade.

The study, "Beyond Broadcasting: Into the Cable Age" by Dr Timothy Hollins, forecasts that by 1994 the three competing media will have deprived the BBC and commercial broadcasters of a maximum 15-18 per cent share of prime time audiences.

Some ITV companies could lose up to 23 per cent of their revenues. But Dr Hollins suggests that the actual loss may be far lower, and is confident that the BBC can continue to justify its claim for a national licence fee for the next decade.

# Rail union instructs members not to move coal

BY OUR LABOUR STAFF

THE EXECUTIVE of the National Union of Railwaymen (NUR) last night instructed its members not to move any coal or coke during the miners' dispute. The executive of Aslef, the train drivers' union, has also decided to block coal movements.

Rail traffic is vital to the transport of coal supplies to the 100 power stations of the Central Electricity Generating Board (CEGB). Coal makes up about 80 per cent of power

stations' fuel and, of that coal, about three quarters is moved by rail.

Mr Peter Walker, the Energy Secretary, told the House of Commons yesterday that coal stocks at power stations were certainly likely to last about six months.

The National Union of Mineworkers (NUM) claimed, however, that at one important power station, Didcot in Oxfordshire, there was only eight weeks' supply and that

this was typical of all power stations.

A spokesman for the CEGB said the board would not issue reports about specific stocks and would not comment on the situation at Didcot.

"Coal stocks at power stations remain high," he said. "They have not run down faster than anticipated and we are confident we can maintain supplies of electricity for several months."

If the NUR and Aslef are successful

in persuading their members not to move coal trains, there could be serious financial consequences for British Rail (BR), at least in the short term. Coal and coke constitute about 60 per cent of BR's freight train traffic. However, coal and coke only provide 47 per cent of the freight receipts.

BR is waiting to see what action union members take before deciding whether to seek a court injunction to prevent unlawful secondary

industrial action. Only a handful of train drivers refused to move coal yesterday and there were reports of Aslef branches viewing the union's call not as an instruction but as a matter for individual decision.

Coal shortages due to the strike yesterday caused redundancies to be announced at British Steel's works at Scunthorpe, Lincolnshire. More than 150 workers will be made redundant or laid off. The works, which obtains most of its

coal from South Yorkshire pits, has had to cut production by 65 per cent.

There were signs yesterday of a return to work by some miners. All 23 collieries in the Nottinghamshire coalfield were working normally and another 15 were producing in the Midlands and western areas.

According to Scotland Yard, 12 more pickets were arrested yesterday bringing the total to 540

# Reuters profit jumps 50% to £55.2m pre-tax

BY CHARLES BATCHELOR

REUTERS, the international news agency and business information group, yesterday set the stage for next month's planned public flotation with the announcement of a 50 per cent rise in 1983 pre-tax profits.

Unaudited preliminary results show that profit rose to £55.2m in the year to December, from £36.73m in 1982. Reuters plans to pay a final dividend of £40, making a total of £90 for the year, compared with £80 in 1982.

Turnover rose 35 per cent to £42.6m from £31.7m, with the result that pre-tax profits rose to 23

per cent of sales, compared with 20 per cent the year before.

Stockbroking analysts said these figures would provide a sound basis for the proposed simultaneous flotation of Reuters in London and New York.

They had been forecasting profits in the £50m to £62.5m range. Mr Nigel Judah, finance director of Reuters, said: "I think an increase in profit of 50 per cent shows that the company is very healthy indeed. It is a very satisfactory result."

Lex, Page 18

# Retail sales recover

SPENDING in shops rose sharply in February, according to revised estimates from the Department of Trade and Industry. Figures suggest that the volume of retail sales recovered after a depressed January, with a 1 1/4 per cent increase. This is significantly better than the provisional estimate published last month.

Separate figures from the department show that the rise in spending continues to be financed to a large extent by credit.

New consumer credit advanced by finance houses and other specialist companies was a record £1.01bn in February. In the three months to February, £2.96bn of new credit was advanced, 8 1/2 per cent more than in the previous three months.

● **COMPAQ** Computer of the U.S. has started operations in the UK. It is offering, through dealers, personal computers at a minimum price of £1,795, but has no plans to manufacture in Britain.

The company had a turnover of more than \$11m (£7m) in 1983, its first year of operation. It has an annual production rate of 100,000 computers which is rising rapidly.

● **THE STOCK EXCHANGE** held up the launch of philatelist Stanley Gibbons on the Unlisted Securities Market while it investigated the former business activities of its chairman.

This was prompted by comments in newspapers about the business affairs of Mr Clive Feigenbaum out-

side those of Stanley Gibbons. He became chairman of Gibbons in January.

● **R. ELLIOTT**, the loss-making machine tool and merchandising group, is closing two of its four UK factories with the loss of 150 jobs. It said it could no longer support the losses of the four factories that formed the Butler and Newall machine tool subsidiary.

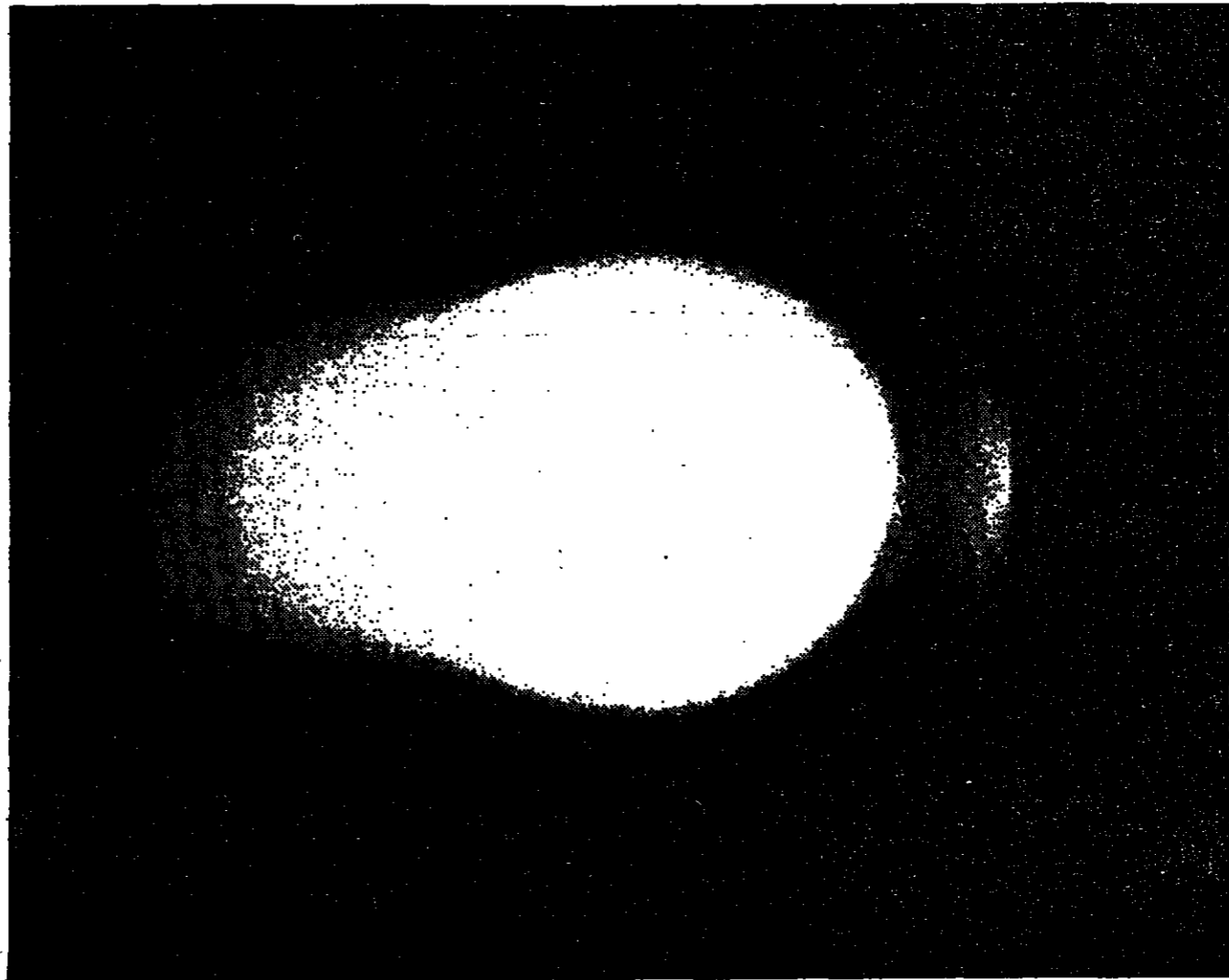
● **GENERAL Electric Company** is to double its production capacity for optical fibres, the hair-thin strands of glass which carry communications in the form of light pulses. The investment, which will cost £1m, will raise capacity from under 20,000 km a year to 50,000 km.

● **A FURTHER** attempt is being made to market Romanian-made vehicles in the UK. Dacia Concessionaires has bought the assets of the Dacia Car Company which failed in June last year. The new company will import commercial vehicles.

● **FLESSEY'S** telecommunications division plans to cut more than 800 jobs at its plant at Edge Lane, Liverpool, by the middle of next year as it switches production from older mechanical telephone exchanges to the fully-electronic System X.

This follows the company's decision last January to reduce by 840 the number of jobs at two other telecommunications factories in Lamberhead, Wigan, and South Shields, near Newcastle-upon-Tyne. The Lamberhead plant is due to close next month.

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THE MANAGEMENT PAGE: Small Business

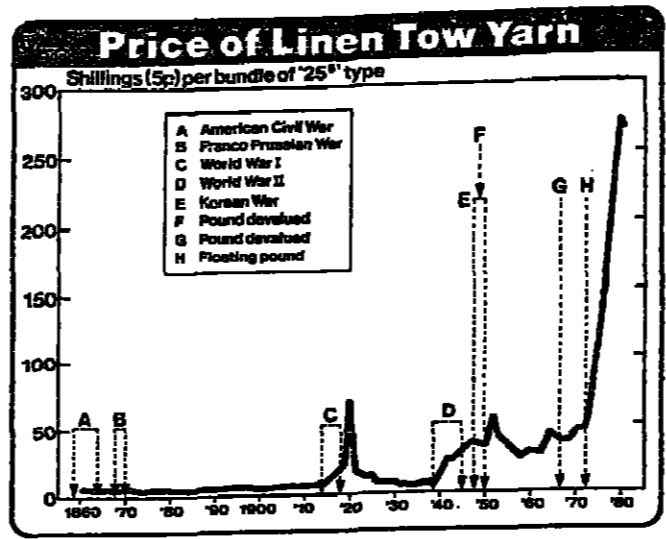
A family business

Secrets of survival

Tim Dickson reports on Ireland's oldest linen company

HOW does a textile business survive for 250 years, remain throughout that time under the ownership and management of its founding family and still look forward with confidence to the 21st century?
Wallace Clark, sales director of Ireland's oldest linen firm, probably knows more answers to that question than most.
For Clark has not only been a principal architect of the recent changes at Wm Clark and Sons of Upperlands, County Londonderry, he has also written an entertaining history of his forebears' achievements, which contains some valuable insights into how a family business can be run successfully.
Luck, he candidly observes, has inevitably played a major part over the years and he pays tribute to (among others) his great-great-grandfather, Alexander the Sealmaster, who was not so great, with the result that the business did not over-expand in the Napoleonic War.
But good fortune is not enough if you want to last 10 years, let alone 10 generations (which with three younger members of the family in the business is Wm Clark's current tally). Much more important are the twin abilities to move with the market place and to respond to technological change.
Appropriately enough, these threads run not only through the years from Jackson Clark's decision to put in water-driven machinery in 1740 to the post Second World War expansion in household textiles. They are an important theme in the latest, and so far largely unchronicled, chapter of the firm's history from 1860 to the present day.
Losses in 1981 and 1982 admittedly brought to an end an uninterrupted run of pre-tax profits dating back to the 1930s. But if the company had not moved aggressively into a different niche of the textile market at the beginning of the 1960s, thereby reducing its dependence on linen, the chances are that a proud Ulster tradition would have been brought to an end well before its modest heirs had been faced with the tough challenge of the latest recession.
As it is, thanks to the sort of cost-cutting and, inevitably, job-shedding, programme which most traditional industries have

been forced to adopt—Clark's workforce has fallen from 350 to 220 in the last couple of years—the company expects to be back in the black for the 12 months to end March 1984. Significant investment in the production and marketing of textile wallcoverings, moreover, has recently paved the way for what Clark hopes will be expansion in a growing world market (notably in North America).
The story of Clark's "fusible interlinings" (which currently account for about £3m of the group's £5m of sales) is also the story of Everbond, a London-based marketing subsidiary set up in 1963 to exploit what was then a very new idea.
Tailors' interlinings, the material placed between the outer fabric and lining of a garment to enable it to retain its shape or "cleaning chassis," Wallace Clark puts it, have been a speciality of Wm Clark and Sons since the business was founded in the early 18th century (while the letterhead and documentary evidence has shown that trading on an ad hoc basis had begun before that date).
Until the 1950s, stiff linen with perhaps a little starch was the ideal material for interlinings but as houses and cars began to be better heated after the Second World War and the use of dry-cleaning reduced linen's inherent advantage of stability, the trade turned to softer fabrics (e.g. wool and hair mixture) including those of the "fusible" or "heatseal" variety. "Fusibles" which were first made in the late 1950s—made of adhesives, laminated to the outer fabric (usually on a press) and involve less tailoring skill and more control than the old "sew-in" system.
Staffers, the publicly quoted company which went into liquidation in 1979, was the unchallenged market leader in fusibles; but on a smaller scale Everbond was among the earlier European companies to respond to this new technical and marketing change.
The result today is that Ever-



Wallace Clark: the ninth generation of family control

national Linen Promotions was fortunately dealt a rurally based business, and the support of Northern Ireland's various industrial development agencies has also been crucial (particularly a package from the Industrial Development Board during the recent recession).
There is, however, no simple answer to the original question, save Clark's observation that "longevity of individuals has been important, and the siring of a son or two of ability in each generation—one who doesn't mind getting his hands dirty." Perhaps there is another clue in his obviously sincere conviction that "a company with no respect for its past does not deserve a future."
\* Linen on the Green, an Irish mill village, 1730-1982. By Wallace Clark, available from Century Press, Alnbrook Road, Belfast. Price £7.95

To trade or to manufacture

BY DAVID HELLIER

EXPORT award-winner Frank Howard has a crucial decision to make. Should he continue running his three-man operation as a trading company or should he take the plunge into manufacturing?
Howard's company, Mostyn Chemicals, distributes chemical products for agricultural, public health, industrial and veterinary uses to around 30 countries—and exports account for more than 80 per cent of his £2m annual sales.
It is for this performance that Howard has just become one of three BOTB export award winners—in the first year that companies in the service sector have been included.
His present dilemma arises from the attitude of potential customers in some of his overseas markets towards middlemen. "Pressure has tightened up on some markets from governments and large purchasing organisations to buy only from manufacturing companies," says Howard. This is making it difficult to secure future contracts, and is a situation he clearly finds inequitable. "A multinational does not always manufacture its own products, but its status is never queried," he remarks.
"We may be forced into manufacturing, and it's a decision I would prefer not to have to make," says Howard. The problem is one familiar to many other small firms, and is just another of the many hurdles faced by small exporters.
David Royce, director-general of the Institute of Export, says: "I do not know of any country in the world where the Government does not tend to prefer to



Frank Howard: 'A decision I would prefer not to have to make'

deal directly with the manufacturer.
This policy is more pronounced in some countries than in others but there's nowhere that the bias does not count."
Royce makes the point, though, that while a feeling exists that "all middle-men are in it for a big rake-off," their special knowledge "may work to the advantage of the buyer."
If a successful trader does feel under pressure to go into manufacturing he should think very carefully before doing so, suggests Royce. "It does not follow that a man who is good at selling is necessarily a good manufacturer. He might be more effective continuing as he is."
George Salt, North-West regional director of the British Overseas Trade Board, reckons that it is a question of swings and roundabouts for a small trading company. Such a concern "has the advantage in that it can put a package together quickly and can deal in small quantities," he says. In some countries, though—like Iraq—they "just will not deal with a middle-man. There, agents are taboo. It's just the way of the world."
Not that the way of the world has been too unkind to Howard's company so far. Mostyn's turnover has increased from £577,000 in 1982 to more than £2m a year in 1984.
"Although many countries have strict requirements, you should not immediately admit defeat. You have to be tenacious and keep going," he says.
Since starting his own company in 1979, Howard has worked closely with Salt's BOTB office in Manchester.

Technical challenge

With the product's up-market appeal Clark hopes that this relatively new activity can bring higher margins as well as higher sales.
Family businesses are often derided by academic economists, who argue that primogeniture is the best way to ensure competent management succession. In Clark's case, however, the family's ability to retain control through thick and thin—and thereby control its own destiny—has almost certainly been a significant factor in the company's success. Many small and medium-sized textile businesses—notably in Northern Ireland—were swallowed up by large groups such as ICI and Courtauld during the post war boom only to be sold down when the going got tough.
As Robert Franks, of Inter-

In brief...

TRAINING for management of small firms is becoming widely recognised as more than a means of developing executives' abilities. The increasing number of evening, weekend and even residential courses run by business schools and polytechnics plays an important role in linking the lonely entrepreneur to his local network of supporting agencies. There is thus bound to be considerable interest in a

new report commissioned by the UK Organising Committee for the European Year of Small and Medium-sized Enterprises which criticises "the fragmentation and lack of direction of Government policy" and calls for a separate management training division within the Department of Trade and Industry. The authors of the discussion paper—Barry Baldwin of Price Waterhouse and Sue Palmer of ICFC—highlight the opposition in universities and polytechnics to devoting more resources

management training. They call for more "tenured" posts to replace the temporary appointments and secondees from industry and advocate a local co-ordinator in each part of the country. The principal message is that more money should be put behind the efforts of Government and academic institutions to reach a far wider audience.
\* Copies available from Bill Poeton, 21 South Terrace, London SW7. Tel: 01-589 1945. T. D.

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# WEST GERMAN MOTORCYCLE INDUSTRY

## BMW bucks the trend

By Alan Wraight, recently in West Berlin

SENTIMENTALITY is not often linked with spending as much as DM 350m (\$135m). Yet it is one reason given by Bayerische Motorenwerke (BMW), the West German automotive group, for already putting DM 300m into modernising its motorcycle factory at Spandau, West Berlin, and committing a further DM 50m for investment over the next two years.

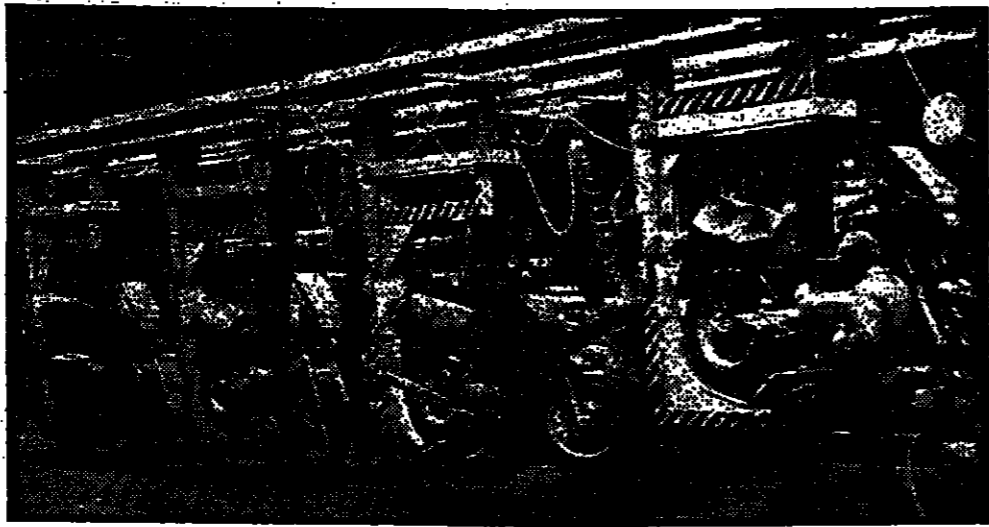
This is in stark contrast to the production cuts made recently by the rest of the world's major motorcycle manufacturers in the face of tumbling sales. It is even more adventurous that the group should commit such a large percentage of its capital investment programme, totalling DM 900m in 1983, into a side of its business which plays so small a part of overall vehicle output.

Last year BMW car production totalled around 420,000 units with a turnover of DM 14bn. However, the Berlin factory, which produced 28,000 motorcycles, had a turnover of only DM 500m, and about one-third of this was generated by car parts which are also made at the plant.

The company is currently losing money on its motorcycle operations—though it declines to specify just how much. It says that with its new investment it will go into the black this year. Certainly, sales of its new K series seem strong. In the UK, for example, BMW bike sales have doubled in the first three months of this year compared to 1983 and in Germany the top-of-the-range K1000s model is sold out until August.

The decision to press ahead with modernising the factory must have been made easier by tax concessions obtainable on investments in West Berlin. Nevertheless the figures demonstrate how difficult must have been the choice, made in 1978, between either pulling out of motorcycles—a traditional loss-maker—altogether or investing heavily in a new generation of bikes to supplement the existing range of flat-twin cylinder engine machines, the basic design of which had not changed in the previous 56 years.

Herr Hans Glas, director of the factory, explains that it was



BMW's motorcycle factory in West Berlin

here that sentiment played its part. The company started in 1923 as a bike producer, when co-founder Max Friz reputedly scribbled the layout of the first flat-twin engine on the back of a beer mat. After World War Two, it was once again with bike manufacture that the group decided to rebuild its fortunes.

Another influencing factor highlighted by Herr Glas is the knock-on effect that involvement with motorcycles has on car sales. This, he says, is difficult to quantify, but the BMW board believes strongly that motor-cycling's sporting image plays a useful part in the marketing of cars.

For this reason advertisements for bikes are placed in car publications, not so much to sell the bikes themselves but to help instil in a potential car buyer's mind BMW's sporting background.

"Mercedes has its trucks and cars", Herr Glas comments wryly. "Despite the fact that bikes represent only 0.6 per cent of BMW's total vehicle production, market surveys have shown public estimates of this to be far higher— as great as 40 per cent in a large number of cases."

"Bike riders themselves seem to consider this sporting image important," Herr Glas adds. "Our bikes have often been labelled expensive. The RS and

RT versions of our new K series cost some £1,000 more than the standard model, and the only major difference is that they have a fairing (racing-style fibre-glass streamlining). Yet customer demand is running 50 per cent for the RS, 40 per cent for the RT and 10 per cent for the standard version."

The new Spandau production facilities, inaugurated last month by Dr Helmut Kohl, the West German chancellor, are now the most modern for motorcycles in Europe.

Robots are being tried out at BMW's separate frame building works but the company is concentrating on the use of computerised numerically-controlled machining operations, a method Herr Glas decries as more in line with BMW's reputation for high engineering standards.

This year BMW plans to produce around 32,000 motorcycles at Spandau, its only factory. The company says that at this level the bike side becomes profitable. Output should increase to 45,000 in 1985.

Of bikes built in the current year, about one-third will be powered by the flat-twin engine and the remainder by the new K series 1,000 cc water-cooled four-cylinder power unit, production of which is planned to rise to 30,000 a year by 1986.

Herr Glas refuses to be drawn on plans for any additions to

the company's bike range. However, beneath one of the factory's coloured production diagrams, a legacy of Dr Kohl's visit, castings for three-cylinder crankshafts were clearly visible. So new models are clearly on the way, which could obviously lift production targets higher.

Some 1,800 people are employed at the Spandau works, 600 of whom are involved in car part activities. With sales of the K series already looking healthy, the plan is to employ a further 180 workers on bike production.

Around 60 per cent of output goes for export to 180 countries—this for government and police use. Very encouraging sales reports are being received world wide for the new K series, according to Herr Glas, and shipments to the U.S., BMW's most important export market, have yet to begin.

Demand for the new models could, therefore, rise sharply. But the governing factor on meeting this is the factory's paint shop. Machine output could be doubled by switching from the current one shift, producing 150 bikes per day, to two shifts. However, to cope with more than 45,000 bikes per year the paint shop must wait for its DM 40m improvement programme to be completed, and that is still some months away.

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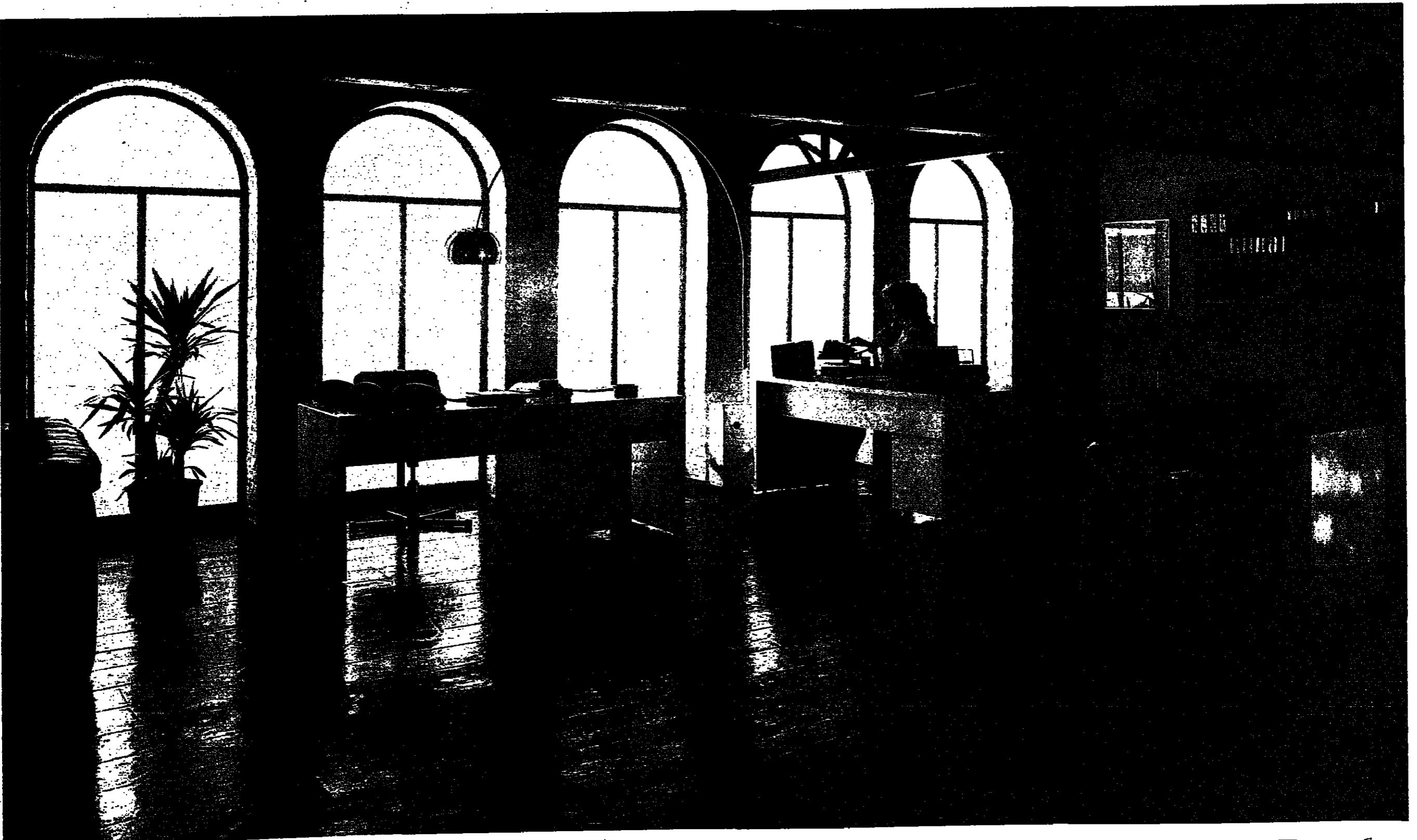
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Confidence in Zimbabwe

THE NUMBER of countries in black Africa which can boast that they pay their bills on time can practically be counted on the fingers of one hand.

Fiscal discipline

Nonetheless, what Zimbabwe has chosen to do is restrict private sector remittances in order to protect payments on its rapidly increasing public sector debt.

Fair taxation for women

MANY ASPECTS of the UK tax system are outdated and illogical and few more so than the current taxation of husbands and wives.

Flaws

The legislation as it stands has several flaws. Quite apart from treating the wife as her husband's chattel, it allows her no privacy in her financial affairs.

Devising an alternative to today's system is not as easy as it might appear—it would have to reconcile the rights of individuals to equal treatment with an outcome which takes due account of their economic circumstances.

THE Common Agricultural Policy is like a supertanker. We have turned the wheel at last and now we must wait to see how long it takes to respond.

EEC Agriculture

Europe sets out on the road to reform

Ivo Dawney in Brussels reports on the implications of the Farm Ministers' new agreement on agricultural prices and production

But the overwhelming opinion was that more will have to be done in the coming years if permanent controls are to be achieved on what for 20 years have been open-ended commitments to price supports.

Mr Poul Dalsager, the Agriculture Commissioner, said: "It would be an illusion to suppose that our task is completed; but the Council's decisions have at last put the Common Agricultural Policy on the right path."

Following that path will require a series of difficult short and long-term decisions. Most immediately, the Commission must set about preparing two key pieces of Community legislation.

The compromises that went to secure a final accord have ensured that this figure will be still further exceeded, some estimate by as much as Ecu 3bn.

Britain is also likely to use the carrot of a final settlement of the issues outstanding from the abortive Brussels summit to reinforce its argument for strict controls on future agricultural spending.

So far, other member States have only agreed in principle to a mechanism that will ensure over a three-year period that farm spending will be contained at a level less than the expansion of own resources.

Despite these question marks, it is clear that the reforms agreed at the weekend constitute the most substantial changes to the CAP since its introduction more than 20 years ago.

First and foremost, the agreement has made clear that farmers can no longer expect open-ended guarantees of support for their products.

Secondly, the widespread price cuts have established that economic stringency and the need to control spending mean farm incomes must, when necessary, take second place to the delicate balance of consumer and Community needs.

One each of the main areas of reform, Monetary Compensatory Amounts, milk, cereals and other products, substantial and

significant changes have been made. But equally there remain major reservations over the stringency of the measures taken and the inevitability that various compromise solutions have failed to tackle.

Monetary Compensatory Amounts, the longstanding system of border taxes and subsidies introduced to protect product prices in strong currency countries from cheap imports from competitors, are to be eliminated in a phased three-year programme.

However, not only is the cost high—perhaps as much as Ecu 400m to the Community and Dm 1.8bn to farmers from the Bonn Government—there are also fears that the consequences could be seriously inflationary.

The agreed system for removing the MCA involves what is effectively a 3 per cent revaluation of the Ecu, creating a green rate for the currency in which farm prices are fixed by the Community.

This solution ensures that German farmers, and those in the UK and the Netherlands where subsidies for exports are currently in force, will suffer no nominal loss of income.

Furthermore, when the German MCA is reduced to zero through a further 7 per cent cut over the following two years, the new green rate will effectively be aligned on the DM. That means that any revaluation of the DM against other EMS currencies, or even a simple upward drift in the cur-

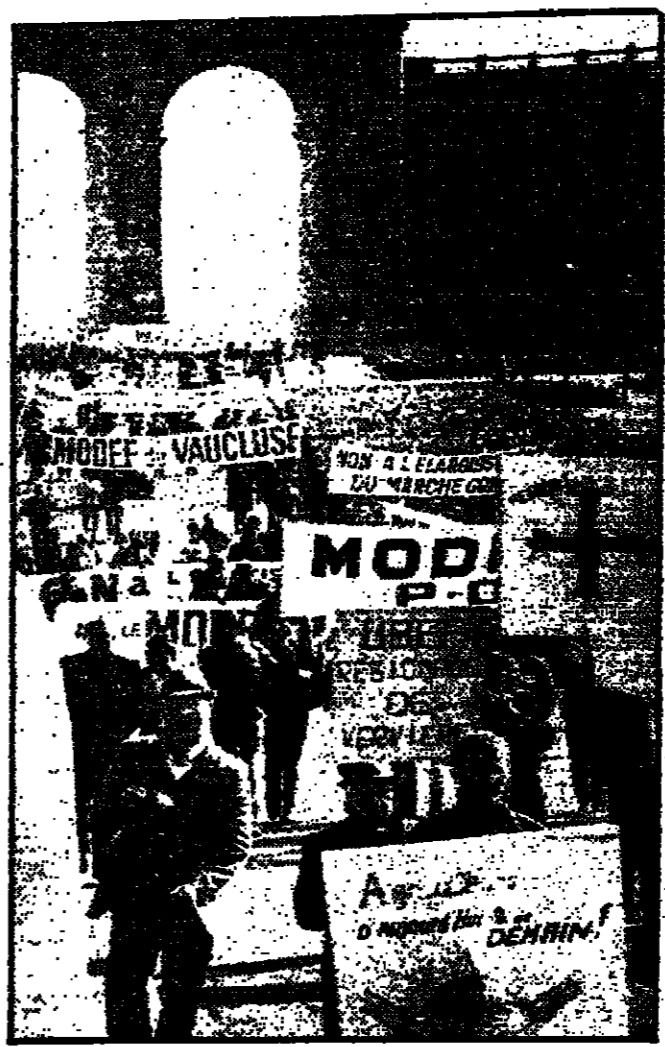
rency's value, will afford all other member states more farm price rises at the expense of their consumers and Community funds.

Milk. Reining in Europe's milk production is undoubtedly the greatest achievement of last weekend's agreement. But even before the deal was signed, the anti-farmers lobby was pointing out that it merely slows the flow of Community cash down the dairy drain.

The final settlement restraining total Community annual production to 99.5m tonnes is impressive when seen against a projected 1984 output of 108m tonnes had no attempt been made to turn off the tap.

But this must be put against Community demand of only 87m tonnes. Thus overproduction at 14.5 per cent this year alone will cost the EEC as much as Ecu 2.4bn (£2bn) or about 21 per cent of the total agricultural budget.

What is more the new regime, following a cut back of 1m tonnes next year, is expected to remain unchanged thereafter.



Before the decision: farmers demonstrate in Brussels against the expected subsidy cuts

adding to an existing butter mountain that is nearing 1m tonnes. Every tonne of the surplus requires a £1,000 export subsidy.

Nevertheless, the impact of the cutback is going to be acute on many of the EEC's 4m dairy farmers. Hardest hit will be countries with many small producers, such as France, Italy, West Germany and even Ireland, despite Dublin's success in winning an exceptional 245,000 tonnes extra quota on top of its 5.3m tonnes 1983 production.

The new "superlevy" will reduce output by an average of about 7 per cent across the Community. And while larger scale producers such as the UK and the Netherlands will be able to reduce output by slaughtering, even they will see some bankruptcies.

Mr John Walker, chairman of the UK's National Dairy Producers' Association, warned at the weekend that up to 10,000 farmers jobs were now at risk.

Cereals prices were suffered a 1

Community prices substantially, and indeed some agricultural economists believe that the knock-on effect in cheaper meat and poultry prices could in itself have major consequences for the reform of the CAP.

But such a move is deemed politically unacceptable by a broad alliance of countries, including the UK, Germany and France.

Attempts to contain cereals substitute imports have been opposed by the British as a dangerous provocation to the U.S., the main corn gluten food exporter. However, it is understood that the Ten farm ministers endorsed at the weekend a Commission mandate to enter new negotiations aimed at containing U.S. sales.

Other products—the Commission's general bracket for everything outside the milk and cereals regimes—have broadly suffered a 1 per cent price cut. Most significant here has been the imposition of support thresholds on several new Mediterranean products, including cotton, sunflower seeds, saffron and dried grapes, setting important precedents for the future containment of surplus Southern products prior to the arrival of Spain and Portugal.

Though the Greeks, the principal victims of the new ceilings introduced in washing up the tonnage, it is now established that the South must take its medicine in the CAP reform programme along with the Northern countries. Little has been done, however, to drain the Community's ever-expanding wine lakes, currently growing by between 15m and 20m hectolitres yearly.

Ministers also failed to tackle a major reduction in the price of beef—despite the 400,000 tonnes mountain and more in the pipeline through enforced slaughtering by dairy farmers. The price of these evasions is already a major talking point in Brussels. The Commission claims that the total package will not add more than Ecu 200m to the Ecu 16.5bn budget allocated to agriculture in the 1984-85 marketing year.

Others, however, point to a number of additional factors that may force spending through the Ecu 20bn barrier. Foremost among these are the state of the world food market, the value of the dollar, the unpredictable nature of harvests and other factors making an accurate prediction impossible.

Nevertheless, the Commission itself is guessing that unfavourable prices for exports could add between Ecu 450m and Ecu 500m to the year end bill. To this must be added Ecu 675m carried over from unpaid support owed to farmers from last year.

Nevertheless, this overspending will have to be tolerated. The real question that remains is how much political will is there for further controls, price ceilings and even price cuts in 1985?

Assuming the British budget, relate through increased VAT at the expense of quality. As a result a large portion of wheat produced is unfit for human consumption, yet overpriced as animal feed.

Moreover, farmers have done everything to increase quantity at the expense of quality. As a result a large portion of wheat produced is unfit for human consumption, yet overpriced as animal feed.

With the farms and silos full with cereals costing \$100 a tonne to export, Cargill, the international commodity company, estimates that the imports of just under 20m tonnes of livestock feed from outside the EEC are costing the Community as much as \$750m yearly.

The logical answer is to cut

HOW PRICE CHANGES COMPARE

Table with 4 columns: Country, Average % change in prices paid to farmers (Expressed in ECU), Average % change in prices paid to farmers (Expressed in national currency), Current inflation rate. Rows include Germany, France, Italy, Netherlands, Belgium, Luxembourg, UK, Ireland, Denmark, Greece, and Common Market.

Rosen ventures abroad

Ben Rosen, now something of a legend on the Californian venture capital scene, was in London yesterday to launch the UK subsidiary of what is claimed to be the fastest growing company in U.S. corporate history—Compaq Computer Corporation.

Rosen offers no comment on reports that he has become a millionaire several times over since starting his venture capital company with L. J. Sevin (ex-head of Mostek, the semiconductor company) in 1981.

But he is chairman of Compaq and several other high-tech outfits. And Sevin Rosen, with offices in New York and Texas, has 25 new enterprises in its portfolio, is examining three applications a week, and currently has funds of \$85m, of which only \$35m have been invested.

Rosen's rise is perhaps the more remarkable because he is an engineer by training, not an accountant; though he did take time out to go to business school. He spiralled into the inside track of the electronics industry in 1976 by starting a newsletter which soon became essential reading for budding entrepreneurs.

Rosen spells out six elements that are essential ingredients of new high-tech companies: good management, compatibility with IBM, an acceptable family of products, ability to ramp up to high volume levels quickly, a good distribution network, and adequate on-going finance.

Compaq, by all accounts, has got all six. The turnover figures for the first four quarters of operation were \$5m, \$18m, \$36m and \$52m.

Call of the wild

The World Wildlife Fund turns today to the somewhat unlikely source of the City of London for the new chairman of its UK organisation.

But Tim Walker, a director of investment managers Henderson Administration, has developed a youthful interest in

Men and Matters



The government is trying to get us an EEC grant to re-open as a milk bar

wildlife to the point where his Wiltshire home now houses one of the largest private animal collections in Europe.

It includes several endangered species of wild animals and birds—the Przewalski wild horse, the Grevy zebra, and white-naped and wattled cranes.

Walker's enthusiasm was fired during army service in Africa—and rekindled during subsequent visits to the continent in the 1970s as he was making a career in the City first with Abbey Life and as a founder director of Hambro Life before joining Henderson.

He started his private zoo in 1976 to help preserve the Grevy zebra. "But concern with saving one rare animal rapidly widens into concern about its natural habitat, and then into an awareness of the importance of conservation generally for man himself," he says.

The UK fund, which has 75,000 members, raised £3m last year. Walker's immediate priority will be to boost that to £4m. It is essential to get business put more of its resources into conservation," he says.

Pharmaceutical companies, in particular, he suggests should be doing more to conserve the plant life from which so many of their profitable products are derived.

Taken aboard

Latest recruit to the good ship Enterprise, the Government's oil-company-in-waiting, due to be floated in the next month or two, is Martin Lovegrove.

Lovegrove, aged 33, started work at Enterprise yesterday without so much as an announcement. He has been seconded from brokers James Capel for six months to help the new board work out its corporate strategy.

That, so far as the City is concerned, is shorthand for mergers, since cash-rich Enterprise has what is known as a tax problem: too much taxable production and not enough tax-offsetting exploration.

Lovegrove, ex-BNOC and Wood Mackenzie, has some experience in these matters having attempted a couple of years ago, during his time as a consultant, to set up the little-known Zeus project.

Zeus was Lovegrove's grand design for marriage-broking the tax positions of the smaller North Sea players, especially what he calls "the hoteliers and yogurt makers"—the non-oil specialists—into a more financially efficient whole. It failed, but even his competitors admit, it had much to be said for it.

Lovegrove is cautious about any suggestion that Zeus is

about to be reborn, murmuring with impeccable corporate soundness that deals need to be based on more than good tax matching.

But on one point he has not changed his mind: "There will be shake-out in the North Sea," he says, "and it will be the companies with the strongest asset bases and the best management which will survive."

Wide spread

Guernsey has loosened its road regulations a fraction to accommodate an embarrassing case of road rage spread that threatened its summer bus services.

The trouble began when Guernseybus, an offshoot of the UK-based Trafalgar Leisure International Group, bought 12 ex-London Transport buses to replace the most venerable of its fleet of vehicles.

Then it was found that the secondhand buses had acquired a bit more girth than their original specification because of engineering tolerances and settlement during their seven years of London life.

The extra width in some cases, as Guernseybus managing director, Barry Spears puts it, was "no more than a coat of paint."

But the buses were banned from the roads. Guernsey's parliament, has now agreed that buses built to the 7ft 6in limit should be allowed a legal spread of up to 1in more.

Ruling the roost

Heard in Chelsea: "She's a very clever young woman—she married a night-owl and turned him into a homing pigeon."

Observer

Advertisement for Thomas Cook travel agency. Headline: "Annual saving? £2 million." Text: "The company is international travel agent Thomas Cook. The speaker is their Chief Executive, Alan Kennedy. Thomas Cook moved their world HQ here from Berkeley Street, Mayfair. Travelling time from Mayfair to Peterborough is barely an hour and Thomas Cook's savings on annual costs are over £2 million. They're happy with the people they've recruited in Peterborough, and those who moved here are very happy with the Peterborough lifestyle. Full details of all the benefits are in our Information Pack. Send the coupon for your copy." Includes contact information for John Bouldin, Peterborough Development Corporation.



Letters to the Editor

Companies and employees

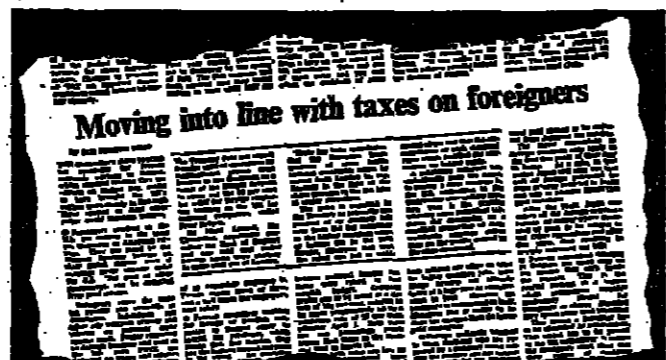
From Mr A. Horne  
 Sir—Mr McFarlane (March 30) is, of course, correct in stating that trades unions belong to their members, while companies belong to their shareholders. It is naive, however, not to look beyond such platitudes and see that there are a variety of stakeholders in both unions and companies. Arguably unions are run by and for the benefit of their elected officials just as companies are run by and for the benefit of their similarly elected directors. The great majority of shareholders passively and unquestioningly resign their interests in favour of those directors much to the relief of the latter.

There may well not be an analogy between greater democracy in trades unions and employers "getting the point about consultation" but that is no excuse for not having meaningful employee involvement. No doubt it would be better not to have a rigid statutory approach but there may be some truth in the idea that just as trades unions are having

democracy foisted upon them because they refuse to reform themselves so the European Commission proposals for statutory measures on employee participation are on the table precisely because effective non-statutory consultative procedures in companies are few and far between.

Meaningful consultation, preferably of an informal nature, is not intended to undermine the right of management to manage, rather it should enhance it by giving managers the authority that stems from knowing that they have the real support of their staff rather than their artificial acquiescence. As British Airways' Colin Marshall has said (see FT, February 22): "If people think you care, think you are emotionally committed to them, they will go to great lengths, even extremely, to get done what is necessary." That is exactly in the interests of all stakeholders in a company be they shareholders, employees, suppliers or customers.

Andrew Horne, Flat 3, 19, Beaufort Gardens, SW5.



Grossly unfair to foreigners

From Mr J. Rudolph  
 Sir—You state (March 15) in your report "Moving into line with taxes on foreigners" that few other countries give foreigners any tax advantages. But the crucial point is that the British Government now puts non-domiciled resident foreigners working for foreign companies at a great disadvantage.

Many foreigners still cannot deduct (from income) their life insurance premiums paid to their insurance company at home.

Foreigners as a rule have to pay full National Insurance contributions and are refused contracted-out rates—though their companies' occupational pension schemes are quite good they are just not geared to the rigid requirements of British law. Many foreigners due to collective agreements in their countries have to pay a certain amount monthly into a professional pension scheme, no matter if they pay contributions elsewhere. Many foreigners

Rents in enterprise zones

From Mr L. Tooke  
 Sir—If D. B. Richardson (March 27) does not take advantage of the fact that some of his buildings are given a tax relief, then he must be a most unusual developer indeed. Or, of course, it might be the case that the advantage went to a previous owner.

From Mr H. Llewellyn  
 Sir—If Mr Richardson's firm (March 27) is quoting similar rents for comparable properties both within and outside the Dudley enterprise zone then either the rents quoted outside the zone are too high or his firm is forgoing the full market rent for the premises inside the zone. If the rents asked are too high, the premises will remain empty; there is a difference between quoted rents and what a tenant will actually pay.

I was not confusing new buildings with old buildings but was referring to position value. If schools, bridges, motorways, ports, North Sea oil, railways and increased production can affect site values, then why not enterprise zones?

Those who regard site values as a justifiable private gain are being short-sighted, and those who fail to collect them are merely giving this advantage to others.

This, however, is not the only incongruity. Anticipation of this value causes speculation and this more than any other factor, is the cause of depressions.

Leonard A. Tooke, 32 Alameda Road, Furbrook, Havant.

Enterprise zone concessions have a market value which will affect site values, then why not enterprise zones?

Occasional aberrations in the market cannot be used as evidence that an economic law is not true.

Fanny Law, 8 Woodhouse Road, Hove, Sussex.

Rules governing political funds

From Shelley Adams  
 Sir—Your leader of March 26 on the Trade Union Bill misses the main point behind the proposed changes to the rules governing political funds. They are nothing to do with democracy—quite the opposite—they are concerned with gagging political opposition. True, you point out that the Bill could affect Labour Party funds—and it is cause for concern when a governing party takes such action against the Opposition, particularly when it declines, almost without comment, to put its own funding house in order. I refer to the totally inadequate controls over company political donations. Inadequate because neither shareholder nor purchaser has the right to make a choice about whether s/he wishes to contribute to Tory Party funds via the company. Inadequate too regarding disclosure of information, since many "political" donations escape the disclosure laws by being laundered through technically "non-political" organisations.

The Trade Union Bill will severely restrict unions' freedom of speech and action and their right to state publicly their opposition to government policy. This is how such literature (amongst other things) which "seeks to persuade any person to vote or as the case may be, not to vote for a political candidate" then when the Bill is law such literature would have to be paid for out of the political fund. Unions without political funds will not lawfully spend money on such literature.

The wording of the Bill is sufficiently vague (now a traditional tactic of Tory anti-union legislation) to create confusion in their minds about any union being blessed with litigation—happy members who, as individuals, irrespective of the democratic wishes or all other members of the union, decide to challenge union expenditure.

But the more serious charge is that it seeks to gag the voice of opposition. It is for example (as noted in committee proceedings on the Bill) likely that Nalco's "put people first" campaign would have had to be paid for out of political funds—Nalco does not have a political fund. It is for example 70 years after the Trade Union Act of 1913, is the Government suddenly so afraid of what trade unions may say, publish and argue for in defence of their members that it feels it necessary to impose a political gag?

Shelley Adams, Brent Local Economy Resource Unit, 389 High Road, Willesden, NW10

Trading outside regular hours

From Mr H. Woolf  
 Sir—Mr J. D. Fletcher, Asda Stores (March 27) in support of Sunday trading in his spirited reply to Mr C. W. Paterson of the Retail Consortium, entirely confirms our views and experience, on trading outside regular hours, over a period of many years.

"Fixed" trade and, in deference to the logic, retail staff could go on a fully paid holiday for the rest of the week, costs such as lighting, heating and security would be cut to the bone, prices must fall, no one would suffer and many would be advantaged. But who would believe it?

Regarding the "domino" theory, that some shops open on Sundays, if allowed, would force all shops to open, few retailers take advantage of the present circumstances in central London which generally allow them to open until 8.00 pm. Although some shops open until this hour and later, the vast majority close at 6.00 pm. Where there is any evidence that shops are forced to remain open by the actions of others? Those who would like to open late only because the provision of that service is commercially viable. If it is not, they do not.

H. Woolf, Underwoods (Cash Chemists), 80 Kings Road, SW2.

Coca-Cola and Guatemala

From the General Secretary, International Union of Food and Allied Workers' Association  
 Certain points raised in the article "The end of civilisation in Guatemala" (March 3) call for correction and comment.

Contrary to what was implied, Coca-Cola is not pulling out of Guatemala. It operates two other plants in the country, one wholly owned at Retalhuleu the other a franchise at Puerto Barrios. Unlike EGSA, the plant in Guatemala City, both are non-union.

The IUF has been gradually taken over by the two other plants since last December.

The Panama-registered company "Administración and Inversiones de Central America," which owns EGSA, is a Coca-Cola front. It has been entirely financed by Coca-Cola, which remains its largest creditor and owns the plant and the machinery. Messrs Zash (not

Sach) and Mendez, the shareholders of AICA, are former Coca-Cola employees who were sent by Coca-Cola to take over EGSA in order to meet the IUP demand for recognition and protection of the union in 1980. As for the question of the company going bust, to date, there has been no official filing for bankruptcy. We question that the company is, in fact, bankrupt.

The 460 workers, who were laid off on February 17 without previous consultation or warning, are in a very precarious position. They have been occupying the plant since February 18. As your article pointed out, the level of repression in Guatemala is again on the increase and therefore they are literally risking their lives.

The IUF will continue in its efforts to make the Coca-Cola company honour its agreement of July 1980.

Dan Galien, Rampe du Pont-Rouge 8, CE-1213 Petit-Lancy, Geneva

Timing tax coding notices

From the Managing Director, Tungsum Hydraulics  
 Sir—Sir Lawrence Airey (March 29) states very clearly the position regarding the timing of notices of tax code notices. As always however, the burden of the extra work which enables the Inland Revenue to operate the system with the minimum of cost will, in Sir Lawrence's own words, be handled by the employers who appear to be all too often taken for granted as unpaid tax collectors.

Surely a more total approach to the problem of the issue of tax coding notices could be achieved by devising a system which would minimise efforts by both the Inland Revenue and employers. This could be in line

with the general view given by the Chancellor in his Budget of being in favour of reforming and streamlining out the operation of our tax systems over the next few years.

I would have thought that the sensible solution to this question would be for the Inland Revenue to issue its instructions to employers relating to increasing tax codes resulting from Budget submissions between the date of the Budget and April 5. In this way, employers would only have to amend their records once rather than twice and the employees would have the benefit of the increased allowances at the proper time.

C. W. Burmhead, The White House, Arle, Cheltenham, Glos.

Housing benefit: talk about kicking those who are already down!

From Mrs S. Simpson  
 Sir—I am a secretary who endeavours to read your paper every day at tea-break time after it is circulated to my two bosses. I buy it myself when on holiday, for I enjoy the way you present the news and give a very fair and balanced view, in my opinion, of all that is happening at home and abroad.

I wondered if you would like to print a reader's letter to some of the other half live to bring to some of your readers the realities of life for the disadvantaged under this Government.

This was brought home to me by your story of March 26 on how the Government was forcing companies taking over some of the NHS functions to reduce the wages of some of the poorest paid in the country, and again on the TV news at lunchtime on March 27, which

showed protests over the sacking of dinner ladies, who were to be offered re-employment at lower rates of pay.

What happened to my son last week comes under this heading, in my view. He is 19, has never had a job, but did a YOP course for six months some two years ago. He suffers from a psychiatric illness and was receiving supplementary benefit of £24.55 per week. Under the new housing benefit scheme, this has been reduced by £3.10. Talk about kicking those who are already down!

I suppose many extreme right-wingers among the Conservatives will say but lucky to get any allowance, but he doesn't feel lucky and gets depressed. The cut in benefit will affect us both, as he will give me less board and lodging and will have less to keep himself.

In spite of that, I for one would be willing to pay more income tax than I already do (the PAYE kind with none of the expenses that those with tax accountants can get for them) and I would also be willing to pay more rates from my salary (which would probably not keep some of your readers in wine for a week) just to have the less fortunate and sick get the help they receive without cuts.

We seem to be becoming a nation of the selfish and the Government seems to be doing its best to keep those with no muscle in a sorry plight. Doing away with wages councils is just another example of putting the boot in on the low paid. I do hope the Government won't forget though that we still live in a democracy in spite of some freedoms being eroded (eg. Cheltenham GCRQ and not

allowing local government, who are also elected, the right to decide locally how to manage their affairs). Any extreme Government, be it right or left, will find itself out of office when it tries to go too far. There are some in the Conservative party who see this, but they are replaced if in high office, or otherwise deal with it.

I am not a believer in hand-outs when not needed. I brought up three children in the 1970s as a single parent and managed to pay a small mortgage and my bills without recourse to free school dinners or rates rebates, etc, but I don't mind those who need help getting it. It is a much fairer thing than reductions in income tax for those who are lucky enough to have jobs.

(Mrs) S. V. Simpson, Carrick Knowe Avenue, Edinburgh.

Britain's Clearing Bank Union

Enter the radical

By Brian Groom, Labour Staff

THE MAIN English clearing banks, says Mr John Cousins, will not delay much longer their onslaught on staff numbers. "They won't do it with malevolence, but they will want to reap the benefit of their investment."

The banks hotly dispute this interpretation of their intentions towards their 239,000 staff. But as the electronic revolution based on automated payments systems begins to take shape, even some of the banks' most loyal employees are beginning to feel uneasy.

Many of them belong to the £7,000-member, non-TUC Clearing Bank Union. Mr Cousins, who became general secretary of the ultra-moderate union two months ago, believes that "if his members do not seize the future, the future will seize them."

Mr Cousins is as assertive as the CBU's members are traditionally moderate. He cut his union teeth as an official of the Transport and General Workers' Union between 1962-75. His father, Frank, led the TGWU from 1963-68 and was Technology Minister from 1964 to 1966.

Aged 52, Mr Cousins joined the CBU from industry. Until recently he was director of personnel and industrial relations at John Brown Engineering. He has also been director of manpower and industrial relations at the National Economic Development Office and personnel director at Plessey. In choosing him, the CBU appears to be seeking to raise its low public profile.

He has radical ideas which may take some selling to a group of Britain's most conservative workers. Some bank executives believe the union was mad to pick him, and predict a fall for Mr Cousins down one of the many manholes which lie in his path.

"He thinks because he's got a strong presence and is a likeable man he can come in and change everything," said one member. "The CBU consists mainly of the individual staff unions at Barclays, NatWest and Lloyds, and much executive power has hitherto been within these rather than in the general secretary's office. The last incumbent, Mr Jack Britz, fell foul of this last year after policy differences with his executive."

Mr Cousins last week negotiated his first manhole with



Terry Kirk

Mr John Cousins, the new general secretary of the traditionally moderate Clearing Bank Union. He cut his union teeth as an official of the Transport and General Workers' Union between 1962-75. His father, Frank, led the TGWU from 1963-68 and was Technology Minister from 1964 to 1966.

The row broke out when Bifu accepted an improved 3.25 per cent pay offer after confidential talks with the five main English clearing banks. This was in spite of a decision by the CBU to ballot members on industrial action—a step they had never previously taken—over a "final" 5 per cent offer.

"I am dismayed that my colleague in another union has entered into this sort of arrangement without consultation with me. I shall recommend to my senior colleagues in the CBU that this makes a merger impossible to create until such time as we can sit down and face the employers together. If we allow ourselves to be divided there is no hope for us," Mr Cousins said.

Earlier, he had been keen to revive the flagging merger initiative. But this now seems set to join all the previous efforts which have been swamped by the history of rivalry between the two unions.

It will not alter Mr Cousins' basic philosophy, and there are other unions with which the CBU could talk. White-collar unionism, he argues, is still

players, will face stronger competition for members across a broader spectrum of the finance industry.

The rift will not alter Mr Cousins' conviction that the CBU must assert whatever strength it can gather. Advancing technology threatens to bring radical change to the once paternalistic banking world, posing new challenges to the staff unions.

The banks play down the fears over job losses, pointing out that their combined staff numbers are at an all-time high. Increases in business have more than offset the impact of labour-saving technology, they say.

But the growth rate has slowed sharply since the 1960s and early 1970s, and even if this does not turn into decline, bankers accept that there will be great changes in the content of people's work.

Mr Cousins: "I am not sure whether the fifth generation thinking or analytic computer is a pipe-dream or not. But if it happened you wouldn't need bank people. You wouldn't even need bank managers. Technology would finally remove those decision-making processes."

Like many other trade unionists, he would like stronger trade union influence over the application of future technology. "In the 21st century we will not be working a 35- or 40-hour week, we will be working two or three days at most and probably only 20 hours."

Come what may, Mr Cousins will try to raise the CBU's profile. "It is the largest union in the clearing banks. It hasn't on my analysis played the leadership role. It has always been prepared to be the second union and I want to change that."

The crucial question is: how on earth can a conservative union like the CBU provide the platform for a broad white-collar grouping in mainstream unionism? Its members have never been on strike, and are not even in the TUC.

The short-term effect of the rift with Bifu is likely to be another twist in the spiral of inter-union competition. It is difficult to see a Cousins-led CBU staying neatly within its present confines.

Bifu, which has grown steadily by mergers with staff associations but has recently suffered badly publicly because of a dispute with its own em-

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**Icahn in new bid for ACF Industries**

**By Our New York Staff**  
 THE BATTLE for control of ACF Industries, the U.S. shipping, railway rolling stock and energy group, heated up again yesterday after an investor group led by Mr Carl Icahn, one of Wall Street's leading arbitrageurs, bid \$33 a share, or a total of \$455.8m, for the company.  
 The latest bid, the second involving Mr Icahn, who owns 27.3 per cent of ACF, tops an earlier agreed bid of \$30 a share or \$424m from WACF Holding Company, a privately held company formed to acquire ACF by a group of investors led by the private investment banking firm of E. M. Warburg, Pincus and Company.  
 ACF confirmed yesterday that it had received a letter from Condor Investors Associates Limited Partnership, which is controlled by Mr Icahn, proposing to acquire ACF for \$33 a share subject to certain conditions.  
 Last month ACF entered into a definitive merger agreement with WACF Holding Company for a leveraged buyout valued at \$424m. That offer is due to be voted on by shareholders on April 25.

**Tandy plans \$355m share buyback**

**By Terry Dodsworth in New York**  
 TANDY Corporation, the largest U.S. electronics retailing company, is proposing to buy in around one-tenth of its equity for about \$355m.  
 The move follows similar programmes by other U.S. companies and reflects a general industry desire to increase earnings per share while utilising excess cash for which no specific projects have been earmarked.  
 Tandy's last balance sheet—of June 1983—showed cash and short-term investments of \$286m against only \$188m in mid-1982. In the first six months of the present fiscal year, Tandy has earned \$160.9m, or \$1.54 a share, on sales of \$1.5bn. This compares with net income of \$146m, or \$1.41 a share, in the same period of the previous year, on sales of \$1.3bn.  
 At the end of 1983, Tandy had 104m shares outstanding, and under the deal announced yesterday will be offering \$35.50 each for 10m shares. It may accept an additional 5m shares, but reserves the right to withdraw the offer if less than 6m shares are tendered.

**New deadline for Dome**

**BY OUR TORONTO CORRESPONDENT**  
 FIVE JAPANESE utilities have given Dome Petroleum, the Canadian energy conglomerate, a nine-month extension for conclusion of a sales contract for liquefied natural gas (LNG) from Dome's proposed \$1.8bn (\$1.4bn) gas project in British Columbia.  
 Dome asked for a 12-month extension, but the Japanese have agreed to move the deadline, already adjusted three times, only to October 31. Deliveries from the project are scheduled to start in 1986, but work has been delayed by Dome's continuing financial problems and difficulties in obtaining of-

**Cross-currency loan packages cut cost of borrowing**

**BY PAUL TAYLOR IN NEW YORK**  
 IT IS 10.30am in New York, 3.30pm in London, 4.30pm in Paris and 2.30am the next day in Sydney. The telephone and telex lines to Salomon Brothers' Manhattan headquarters are buzzing, as the final touches are put to a complex \$43.5m cross-currency interest rate swap deal.  
 For two years now deals such as this have been gaining popularity in financial markets, prompting the employment of full-time specialists at many banks. Their objective is to help borrowers raise funds on the terms they require, and in the currency they prefer, without being constrained by the day-to-day vagaries of different markets.  
 The deal described involved the Council of Europe's Resettlement Fund, based in Paris, the National Australia Bank, a U.S. savings and loan association and investors in Switzerland, the U.S. and the Pacific Basin.  
 By the close the Council of Europe was estimated to have saved more than \$2.5m in interest. The Australian bank had opened up a new credit source. The U.S.-based S & L had converted a floating rate liability into a fixed rate liability more closely matching its assets. Salomon Brothers, the Wall Street investment bank, had earned an "interesting and profitable" commission.  
 The deal exploited the advantage one borrower has in one market against that of a second borrower with a similar credit rating in a different market.  
 The starting point for the transaction was that the Council of Europe wanted to borrow in low-cost

markets—like the Swiss franc foreign bond. The Council, however, has been a frequent borrower in the Swiss market and concluded that it would have had to pay a premium if it had gone there directly.  
 By contrast, the National Australia Bank could, as a new borrower, command a good coupon rate in the Swiss market, would benefit from the market exposure, but wanted floating rate dollars.  
 The resulting deal was put together by Mr Neil Benedict, the English-born vice president of Salomon's International Capital Markets Services Group in the Wall Street firm's corporate finance department. It ran like this:  
 Stage 1: U.S. dollar private placement for the Council of Europe. Salomon Brothers arranged a \$43.5m fixed-rate private placement on undisclosed terms with Pacific Basin Investors.  
 Stage 2: public offering of Swiss francs for the National Australia Bank. Credit Suisse, as lead manager, arranged a 10-year SwFr 100m public bond issue in Switzerland at the fixed rate of 5% per cent on behalf of the bank.  
 Stage 3: currency and interest swap in which U.S. dollars are exchanged for Swiss francs. Salomon arranged a deal in which the Council of Europe received U.S. dollars, each side taking on the other's interest rate commitments.  
 Stage 4: interest rate swap in which the dollar fixed interest rate commitment is swapped for a floating rate commitment. Salomon arranged a deal between the National Australia bank, in which the bank wound up with a floating rate liability tied to the London interbank offered rate (Libor), while the S & L ended up with a fixed-rate liability.  
 In practice, the final stages took place simultaneously, with Mr Benedict, Mr Roger Vanden Braeden, Governor of the Council of Europe, and a senior executive of the Australian bank, all sitting in London, and Mr Michael Portington of Salomon sitting in New York talking to Salomon's Sydney and London offices and to the unnamed S & L.  
 At the close, the liabilities for each of the participants remain in the initial currency but are fully hedged forward since both the principal and the interest payments are made by the assuming partner in the transaction.  
 While this particular sequence of transactions is one of a very few

which the participants have been willing to make public, deals like it have become the bread and butter of a large segment of the international capital market.  
 Mr Benedict says Salomon itself has arranged about 10 similar transactions in the last six months using the Swiss franc market alone. Other recent deals have involved such U.S. corporations as Hospital Corporation of America, linking with an Austrian government agency.  
 The cross-currency interest rate swap began to make itself felt with an IBM and World Bank deal in 1980, in which the U.S. computer giant was concerned to lock itself into a currency gain.  
 Nevertheless, Mr Benedict says the Council of Europe deal represents a "classic example of real benefits to be derived by issuers and investors through the innovative use of integrated world financial markets."  
 For the moment many such deals revolve around the Swiss franc market because of its particular investor selectivity and low nominal interest levels, although Mr Benedict accepts that this could change as investor perspectives shift.  
 The potential for such deals—where everyone apparently gains—is highlighted by the fact that last month Salomon conducted a study on behalf of one U.S. corporation and discovered six potential markets where borrowing would have been cheaper than in the currently depressed U.S. credit market.  
 International capital markets, Page 36

**Massey-Ferguson cuts loss sharply**

**BY BERNARD SIMON IN TORONTO**  
 MASSEY-FERGUSON, the troubled Canadian manufacturer of farm and industrial machinery and diesel engines, reduced its net loss to \$68m in the year to January 31 from \$413.2m in the 12 months to October 31 1982, despite the continued weakness of its main markets.  
 The net loss per common share was cut from \$0.95 to 93 cents. Massey reports in U.S. dollars.  
 Sales dropped by a quarter last year to \$1.5bn, although 1982 figures included sales of Latin American subsidiaries which have since been deconsolidated. Excluding these operations, revenues fell by 15 per cent last year with the largest decline suffered by operations in Africa, Asia and Australasia. Diesel engine sales slumped by 39 per cent in 1983.  
 The company said it was able to cut its net losses by reducing costs and restructuring its operations. Interest charges were halved last year to \$68.7m, while marketing and administrative costs declined to 14.2 per cent of sales from 16.9 per cent in the 1982 financial year. Cash flow from operations was positive for the third successive year.  
 Mr Victor Rice, Massey-Ferguson's chairman, said he expected a "further improvement" in results this year. "We are still biting the bullet, still cutting costs and still demanding more results from few assets," he said. Sales in the three months to January 31 rose to \$362m, 18 per cent higher than the same quarter last year. The net quarterly loss was reduced to \$26.9m from \$84.4m.

**Nutricia profits up 21%**

**By Walter Ellis in Amsterdam**  
 NUTRICIA, the Dutch-based foodstuffs group which has subsidiaries throughout Western Europe, lifted its 1983 earnings by 21 per cent, to just over Fl 22m (\$7.5m).  
 Sales were up by 5 per cent, to Fl 576m, with most of the increase coming in the second half. The profit on ordinary activities (operating profit plus net financial income and expenses) shows an increase for the year of 25 per cent. Tax went up, however, from 39.7 per cent of gross earnings to 42.3 per cent.  
 Nutricia has proposed a 1983 dividend of Fl 3.80, against Fl 3.40 for 1982. Because of a slight increase in share capital last year, earnings per share rose by 18 per cent, and not the 21 per cent applying to the overall result.  
 KNP, the Dutch paper manufacturer, has expressed "considerable optimism" about its prospects for 1984.  
 Net profits last year were Fl 36.4m (\$12.5m), representing an improvement over 1982 of no less than 325 per cent. The directors plan a dividend for the year of Fl 3.50, up Fl 2 on 1982.  
 Operating profit in the first half of this year is expected to be well up on the Fl 8.8m achieved from January to June last year, and KNP is forecasting a six-month result in excess of Fl 15m.  
 Last year's total operating profit of Fl 24.8m was boosted by extraordinary gains of nearly Fl 12m from restructuring operations. At the same time, share capital was up, in part because of the early repayment of a subordinated bond, from Fl 292m to Fl 351m.  
 Earlier this year Mr F. J. de Wit, chairman of KNP, said a strong pick-up in demand for paper in the U.S. had begun to offset the glut of paper available in Europe.

**Snamprogetti nearly doubles earnings**

**BY JAMES BUXTON IN ROME**  
 SNAMPROGETTI, the engineering and contracting subsidiary of ENI, the Italian state energy corporation, almost doubled its profits for 1983. Net profits were L15bn (\$9.2m) on sales of L143bn compared with profits of L8.5bn and sales of L73.2bn in 1982.  
 The company ended 1983 with an order book worth L1,600bn after a year in which it won a series of major contracts, including one for a gas pipeline in Nigeria, a refinery expansion project in the same country, a crude oil treatment plant and 1,500 km of pipeline in Sudan, and a project to boost the capacity of the Netherlands-Italy gas pipeline.  
 Saipem, Snamprogetti's sister company which concentrates on drilling and pipelaying, confirmed earlier forecasts by reporting a L51.7bn net profit on the 1983 consolidated activities of the whole group, including its minority participation. Total turnover for the

**Norwegian insurer advances**

**By Fay Gjester in Oslo**  
 STOREBRAND-NORDEN, Norway's largest insurance group, doubled pre-tax profits last year—to Nkr 216m (\$28.8m) from Nkr 106m in 1982—and is increasing its dividend by Nkr 1 to Nkr 13. Earnings per share rose by 50 per cent—from Nkr 27 to Nkr 39.  
 The 1983 annual report says profits from activities in Norway continued to grow last year, but foreign business still showed a loss.  
 Gross premium income in the non-life sector was 12 per cent up, at Nkr 5.25bn. The life insurance company in the group, Storebrand-Norden Liv, reports a 19 per cent rise in premium income to Nkr 915m.  
 The board is seeking approval for a one-for-five rights issue at 175 per cent of par, which would boost share capital by Nkr 104m to Nkr 620m.

**Treca bids for Dunlop subsidiary**

**By Paul Betts in Paris**  
 A FRENCH manufacturer of bedding equipment and car seats has put in a last minute bid to takeover the Dunlopillo mattress and car seat operations of Dunlop France.  
 The French company, Treca, which is privately held, confirmed that it had made an offer yesterday as the deadline over the future of Dunlop's French operations was closing in. The French Government has been seeking counter-offers from French and European concerns for Dunlop's French activities as an alternative to a fresh takeover bid for these operations from Sumitomo Rubber of Japan.  
 The bedding group said it was interested in the Dunlopillo facility at Mantes near Paris. But it also said it clearly could not consider nor was interested in Dunlop's French tyre manufacturing operations.

**Akzo nv registered office at Arnhem**

The annual general meeting of stockholders will be held on Tuesday, April 24, 1984, at 10.30 a.m. in Musis Sacrum, Velperplein, Arnhem.  
 Facilities for simultaneous translation into English are available.  
**Agenda**  
 1 Opening  
 2 Report of the Board of Management for the fiscal year 1983  
 3 Approval of the financial statements; consideration of the dividend proposal  
 4 Determination of the number of members of the Supervisory Council; appointment of members of the Supervisory Council  
 5 Proposal to designate the Board of Management as entitled to issue shares and to restrict or disregard the preemptive rights of stockholders  
 6 Proposal to authorize the Board of Management to acquire shares in the Company on behalf of the Company  
 7 Any other business.  
 Re item 4:  
 In connection with the nomination for appointment to the Council of F.H. Fentener van Vlissingen, it is proposed that the number of members of the Supervisory Council be raised to 12. It is further proposed that S.C. Bakkenist, J.R.M. van den Brink, Y. Scholten, and E.G.G. Werner be reappointed.  
 Re item 5:  
 This proposal concerns the designation of the Board of Management, for a period of 5 years, as entitled:  
 (a) to issue, and to grant rights to take up, the ordinary shares not yet issued;  
 (b) to restrict or disregard the preemptive rights which the law accords to stockholders upon the issue or the granting of rights by virtue of (a) provided that such act of restriction or disregard does not relate to more than five million ordinary shares, and only insofar as shares are concerned which are issued pursuant to a resolution of the Board of Management.  
 Re item 6:  
 This proposal concerns the authorization of the Board of Management, for a period of 18 months, within the limits provided by the law and the articles of association, to acquire for a consideration shares in the company at a price not in excess of market value.  
 The agenda, the signed financial statements, as well as a list of personal data on the nominees for the Supervisory Council are available for inspection by stockholders at the Company's office, Velperweg 76, Arnhem.  
 There and through the undermentioned banks stockholders may obtain free copies of the aforesaid documents as well as a free copy of the annual report.  
 Stockholders who wish to attend the meeting should deposit their shares in order to establish their identity not later than Wednesday, 18 April, 1984 at the Company's office, Arnhem, Velperweg 76, or with one of the following banks:  
 In the Netherlands with Algemene Bank Nederland N.V., Amsterdam-Rotterdam Bank N.V., Bank Mees & Hope N.V., Nederlandse Credietbank N.V., Nederlandsche Middenstandsbank N.V. and Pierson, Holding & Pierson N.V. in Amsterdam, Rotterdam, The Hague and Arnhem, insofar as said banks have branches in these cities, and with Rabobank Nederland at Utrecht.  
 In the Federal Republic of Germany and in West-Berlin with the Deutsche Bank AG, Deutsche Bank Berlin AG, Bank für Handel und Industrie AG, Berliner Handels- und Frankfurter Bank, Dresdner Bank AG and Sal. Oppenheim jr. & Cie. in Frankfurt a.M., West-Berlin, Düsseldorf, Cologne, Hamburg and Wuppertal;  
 In Belgium with Generale Bank-maatschappij N.V., Bank van Parijs en de Nederlanden België N.V. and Kredietbank N.V. in Brussels and Antwerp;  
 In Luxembourg with Banque Générale du Luxembourg S.A. in Luxembourg;  
 In the United Kingdom with Barclays Bank PLC and Midland Bank PLC in London;  
 In France with Lazard Frères & Cie. and Banque Nationale de Paris in Paris;  
 In Austria with Creditanstalt-Bankverein in Vienna;  
 In Switzerland with Swiss Credit Bank, Swiss Bank Corporation, Union Bank of Switzerland in Zurich and Basel and their branches, and also with Pictet & Cie. in Geneva;  
 In the United States of America with The Chase Manhattan Bank N.A. in New York N.Y.  
 The Supervisory Council  
 Arnhem, 2 April, 1984

**Financial debut in Portugal**

**By Diana Smith in Lisbon**  
 COMPANHIA de Investimentos e Serviços Financeiros (CISF), Portugal's first fee-based financial company, is being launched this week.  
 The event marks the Portuguese debut of Japan's Sumitomo Bank, which holds 10 per cent of CISF and an expansion of activities in the country by Britain's Lloyds Bank International, also with 10 per cent.  
 CISF plans to deal in the increasingly diversified bonds that many Portuguese public companies are using to raise capital; and it hopes to spur on the somewhat dormant domestic stock market by persuading private companies to go public.  
 Two of CISF's founders, Sr Teófilo Moreira and Sr Vaz Mascarenhas, both former officers of the National Savings Bank, hope to nudge the authorities into developing liberalised foreign exchange and money markets to replace the present tightly controlled systems.  
 CISF numbers two nationalised Portuguese banks—Banco Nacional Ultramarino and Banco Fonseca e Burnay, each with 10 per cent—and three insurance companies among its shareholders. A further 12 companies, including construction and retail groups, together hold 29.5 per cent and individual shareholders hold 19 per cent.  
 The company had trouble getting permission to operate because its aims fell outside the limited range of investment and leasing companies allowed to operate since 1980 in a sector dominated by nationalised banks.  
 It finally skirted the problem by adding "investment" to its title and medium-term lending to its activities, thus qualifying as an investment company.

**Sundsvalls Banken 1979/1983**

Category	1979	1983
EXPANSION	SEK 6,788m	SEK 10,944m
CAPITAL BASE	SEK 640m	SEK 1,132m
OPERATING PROFIT	SEK 117m	SEK 232m

**Five years' steady expansion at home and overseas**

In the years 1979/1983 Sundsvalls Banken has seen its capital base grow from SEK 640m to SEK 1,132m. This growth expansion has been achieved entirely through retained profits which have grown continuously during the same period. The resultant strong capital base has enabled a substantial increase in total assets and a broadening of the Bank's range of activities notably in the International Division, based in Stockholm.  
 The bank has also expanded internationally through its participation in the well established London merchant bank, Arbutnot Latham Bank, and the setting up of a representative office in Trondheim, Norway.  
 To secure a further rapid expansion, within the traditional context of a soundly based well consolidated capital structure, the Bank is making a rights issue which will add approximately SEK 130m of additional equity and reserves.  
 Sundsvalls Banken, International Division, Regeringsgatan 42, Stockholm. Tel. 08-22 77 20 Telex: 17616 SUB S


Sundsvalls Banken, International Division, P.O. Box 7135, S-103 87 Stockholm, Sweden.  
 Please send me a copy of your 1983 Annual Report & Accounts.

Name \_\_\_\_\_  
 Address \_\_\_\_\_  
 Postcode \_\_\_\_\_

**SUNDSVALLS BANKEN**

## INTL: COMPANIES &amp; FINANCE

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(Incorporated in Hong Kong)  
U.S.\$100,000,000  
GUARANTEED FLOATING RATE NOTES DUE 1994



Unconditionally and irrevocably guaranteed as to payment of principal and interest by  
**THE BANK OF YOKOHAMA, LTD.**  
(Incorporated in Japan)

Notice is hereby given that the Rate of Interest for the initial interest period has been fixed at 11% per annum and that the interest payable on the relevant Interest Payment Date October 2, 1984 against Coupon No. 1 in respect of US\$10,000 nominal of the Notes will be US\$559.17.

April 3, 1984, London  
By: Citibank, N.A. (CSSI Dept), Agent Bank

**CITIBANK**

## THE FT WORLD GOLD CONFERENCE

Hong Kong May 3 & 4 1984

Robert Guy, Chris Stals, Hans Mast, Meinhard Carstensen and Takashi Tanaka will be among the most prominent international authorities addressing this sixth international meeting. The occasion is one of the main FT forums of the year and the worldwide audience is invariably impressive.

Further details and registration forms from:

Financial Times Conference Organisation  
Minster House, Arthur Street, London EC4R 9AX  
Telex: London 27347 Tel: 01-621 1355

## Mixed results for foreign oil companies in Japan

TOKYO—Six Shell companies in Japan have posted a 58.9 per cent gain in aggregate net profits to ¥22,58bn (\$100m) for 1983.

The companies included are Shell Kosan, Shell Sekiyu, Shell Kagaku, Shell Sempaku, Kabushiki Kaisha Rising Sun, and Billiton Metals Japan. Shell also owns 50 per cent of refiner Showa Oil, of which figures are not consolidated.

Profits before tax and extraordinary items swung to a gain of ¥24.2bn from a loss of ¥6.1bn in 1982, but sales proceeds fell by 13.6 per cent to ¥1,248bn. Sales volume for oil declined by 6.6 per cent to 16,299m kilolitres.

The decrease in sales proceeds came from fierce competition and a slide in market prices which exceeded crude oil price

cuts. Despite the lower proceeds, the companies reduced the cost of oil sold helped by favourable exchange rates.

Esso Sekiyu and Mobil Sekiyu have also posted gains in unconsolidated net earnings for 1983 despite declines in sales.

Esso Sekiyu, which is wholly owned by Esso Eastern, a unit of Exxon of the U.S., posted net earnings of ¥14,62bn, up 0.4 per cent from ¥14,56bn in 1982.

However, profits before tax and extraordinary items, fell 4.1 per cent to ¥25,72m, and sales revenues dropped by 12.5 per cent to ¥950bn.

The dividend total is raised to ¥7,309 a share from ¥7,250 a year earlier.

Mobil Sekiyu, which is wholly owned by Mobil Petroleum of the U.S., posted a net profit of

¥20,07bn, up 116.8 per cent. Pre-tax profits were ¥18,39bn, up 3.3 per cent, but sales fell by 10.1 per cent to ¥1,042bn.

The dividend total is lifted to ¥13,609 a share from ¥10,000 in 1982.

Esso Sekiyu's sales fell mainly because of a decrease in sales volume of oil products and declines in prices of crude oil and oil products. Sales volume fell 3.0 per cent to 11,504m kilolitres from 11,864m kilolitres a year earlier.

The company's net profit showed a slight gain, despite the decline in sales, because of reduced corporate taxes.

Mobil Sekiyu's sharp rise in its net surplus came from extraordinary profits of ¥8,004bn. Total sales volume of oil products edged down by 1 per cent to 13,498m kilolitres.

AP-DJ

## Downturn in profits at Intraco

By Chris Sherwell in Singapore

INTRACO, the publicly-quoted trading company in which the Singapore Government has a substantial minority stake, has reported pre-tax profits of S\$7.06m (US\$3.4m), down 37.4 per cent for the year to December, despite a 5.2 per cent rise in turnover to S\$462m.

The company warns that its 1984 performance is likely to be similar. Although second-half profits last year were better than those of the first, the company says that first quarter trading conditions this year remained sluggish.

Net profits attributable to shareholders were S\$4.7m, down 52.8 per cent despite the sale of investments. The directors have recommended an annual dividend of 10 cents a share, the same as last year, representing a payout of S\$4.5m which is higher than last year because the company's share capital has been increased from S\$40m to S\$75m.

## Revival plan for Thai United Trust

BANGKOK—Laem Thong Bank has agreed to join the state-owned Krung Thai Bank and two other Thai companies in a plan to revive Thai United Trust, which was forced to suspend its operations last year.

Laem Thong Bank said the Bank of Thailand has approved its rescue plan, which calls for an increase of Thai United Trust's registered capital to 250m baht (US\$10.9m) from 100m baht.

Thai United Trust was hit by a run on its deposits last year after the collapse of several other finance companies.

Krung Thai will provide 50m baht of the additional capital and Laem Thong and the two other companies, Thai Life Insurance and Bura Windsor, will provide the rest.

The four companies have agreed to assume all of Thai United's debts totalling 1,166m baht, mostly in the form of notes owed to individual depositors. The debts will be repaid with a 6 per cent interest stretching up to five years for depositors of amounts over 1m baht.

Reuter

## Australia to restructure bank

CANBERRA—Australia's government-owned Commonwealth Banking group is to be restructured, the Government and Federal Treasurer, said yesterday.

The Government plans to make the Commonwealth Savings Bank a wholly-owned subsidiary of the Commonwealth Trading Bank and to rename the trading bank the Commonwealth Bank of Australia.

In addition the capital position of the new bank will be bolstered by transferring A\$75m in Commonwealth Development Bank reserves to the restructured bank.

Mr Keating said the Government also plans to reduce to 45

per cent from 50 per cent the share of profits the Commonwealth Bank must pay in dividends to the Government and make the Commonwealth Development Bank subject to company income tax.

The moves are designed to modernise the structure of the bank and make it more competitive with Australia's commercial banks.

The trading bank, with assets estimated at A\$10.5bn is the fourth largest bank in Australia. In the year ended June 30, 1983, the Commonwealth Banking Corporation had a profit of A\$152.8m with A\$47.5m coming from the trading bank and A\$68.2m from the savings bank.

● The Victorian Supreme Court has ruled that all share transactions in Monarch Petroleum NL and other Magnet group companies made after 11:01 AEST on March 14 are void.

This was the time that a forged letter was issued to Australian stock exchanges claiming that Monarch had regained part of a former stake in the major Jabiru oil field in the Timor Sea in an out-of-court settlement of a legal action.

Monarch shares doubled to 40 cents in a hectic half-hour's trading before the forgery was detected and Magnet group share trading was suspended. Agencies

## Name change for Mercedes unit

BY OUR JOHANNESBURG CORRESPONDENT

MERCEDES BENZ the West German car manufacturer has announced that the name of its 50.1 per cent owned South African subsidiary is to be changed from United Car and Diesel Distributors (UCDD) to Mercedes Benz of South Africa.

The name change follows the increase earlier this year in Mercedes' interest in the company after the previously largest shareholder, Volkskas, the banking group, declined to follow in full a R30m rights

issue. Volkskas now has 26.5 per cent of the subsidiary's equity and the Ernst Gohner Foundation of Switzerland 23.4 per cent.

The company sold cars, trucks and buses worth R869m (\$561m) last year and is second only to Toyota in the South African motor market. In terms of vehicles sold Mercedes had 6.9 per cent of the total South African vehicle market but its share of sales revenue was 13.8

per cent. By way of comparison Toyota sold 92,386 vehicles worth R951m. It had 19 per cent of the market by value and 22.8 per cent by volume.

The South African operation is the largest Mercedes division outside Germany and represents a total investment of R240m. The company expects to spend a further R140m over the next five years in South Africa largely on expanding its dealer network. The company's factory at East London employs 4,500.

# NEGOTIATING AND EXECUTING ONE OF THE BIGGEST INTERNATIONAL ACQUISITIONS IN HISTORY IS NO MEAN FEAT.

## AUSTRALIA'S BHP DID IT IN 18 MONTHS.

Australia's BHP has now officially acquired control of Utah International from General Electric.

In one of the biggest International corporate acquisitions in history, BHP has acquired more than a portfolio of mining operations around the world, including its home country.

It has acquired a focal point for future expansion in the international arena.

It has acquired a louder

international voice.

And with more direct access to more international markets, it has acquired the ability to compete on more equal terms.

The nature and size of this bold Australian initiative will lead to more than increased Australian business interests around the world.

The expertise with which it was carried out will lead to even greater confidence in BHP by anyone who

may consider doing business with them in the future.

Be they Brazilian bridge builders, or British banks. And it's a confidence which will be well placed.

Contact Mr. R.M. Williams, BHP, Hanover House, 14 Hanover Square, London W1R 0ND. Telephone 01 499 0621.

Australia's  
**BHP**



UK COMPANY NEWS

Bunzl surges 36% to record £17m

WITH ALL divisions recording increased contributions, Bunzl's pre-tax profits of £17m surged from £12.6m to a record £17.3m for the 1983 year, an advance of 38 per cent.

Shareholders are told that this new balance in group operations, together with the extent of the activities within the expanding U.S. economy, gives the directors "great confidence for the future."

The chairman explains that the group's new activity mix is strongly cash generating and because of this the year-end balance sheet had a debt/equity ratio of only 30 per cent, despite the sustained growth throughout the group in 1983, continued capital expenditure, acquisitions for cash and an associated goodwill write-off.

comment

Bunzl's transformation over the past three years is an object lesson in growth by acquisition. It picked a business—paper distribution—where it saw growth opportunities and which bore some relation to its existing activities. It correctly chose to go into the U.S. in the depths

£507,000 profit made by Palma

THE FUTURE is viewed with "considerable confidence" by Mr Peter Bailey, chairman of Palma Group, the private hosiery and knitwear manufacturer.

Conder cuts loss and sees big turnaround next year

NO FURTHER provisions were needed against the Iraqi operations of Conder International and, as expected, the company returned to profit in the second half of 1983. This cut the loss for the 1983 year to £48m.

HIGHLIGHTS

Lex looks at the implications of the weekend's agreement over the refinancing for Argentina banks and then moves on to examine the deal whereby Kleinwort Benson is buying a securities dealer in Chicago for \$23m.

comment

Conder has retired, licking its wounds, from its ventures overseas. In more peaceful days, the company's main thrust internationally was in Iraq, and the war has, of course, wrought havoc with the p and r account. The damage now seems to have been contained, with Conder's exposure limited to a couple of years of care and maintenance on contracts already completed.

Second-half fall leaves Molins £1.2m down

SECOND half pre-tax profits of Molins fell from £9.1m to £7.9m and left the figure for the whole of 1983 behind at £7.1m, compared with a previous £8.3m.

At halfway tobacco profits were up from £5.1m to £5.4m but were offset by a decline in the paper contribution which would be somewhat lower because of a continuing unsatisfactory trading situation at DePford and local economic conditions affecting customers of certain overseas operations.

corrugated board machinery demand in the current year, the directors feel it would be unwise to attempt to be specific about the outcome for the 12 months.

packer and the Mark 10 cigarette maker—are only now going to customers. Even that is small help short term as each machine sells at a loss as Molins machine inches its way up the learning curve, a process likely to take at least a year.

Arthur Wood reaches record £385,000

Pre-tax profits at Arthur Wood and Son (Longport) showed a marked recovery from £41,000 to a record £385,000 for 1983.

Frizzell Group increases by 30% to end at £4.5m

IMPROVED pre-tax profits of £4.5m compared with £3.44m have been produced by the Frizzell Group for 1983.

Earnings and dividend lift by R. & H. Hall

A further pick-up in profits to £12.6m is reported by R. & H. Hall, Cork based grain merchant, for 1983.

Town Centre

Pre-tax profits at Town Centre Securities moved up from £871,919 to £1m for the half year to the end of 1983.

Amalgamated Estates deficit up

In the half year ended September 30, 1983, the pre-tax loss at Amalgamated Estates, property investor, rose from £529,765 to £602,257.

of dealing properties to £423,502 (nil), and loss on disposal of investment properties to £18,178 (nil). Last time there was a loss in the hotel television activity of £163,704.

by Linden Holdings of 19.3 per cent of the Amalgamated Estates' ordinary capital from Promotions House was not completed on March 30, and consequently Mr D. Abill, Mr I. Shah, Mr S. Shah and Mr M. Harvey have resigned from the board.

J. & H. B. JACKSON p.l.c.

Highlights from the Statement by the Chairman, Mr. F. J. White. The pre-tax profit for the year ended 30th September, 1983 was £3,579,000 (1982: £3,137,000).

sector and reduced tonnages of scrap being produced by engineering companies, profit margins remain under pressure.

ENGINEERING DIVISION During the last three years we have greatly reduced our exposure in general engineering by selling these companies and closing down one other. We now have a relatively small division consisting of a gear cutting company and a prototype and production machining company.

FORGING DIVISION Unfortunately there has been no improvement in demand for aircraft forgings, although there has been a noticeable increase in the number of enquiries received in the new year.

PLASTICS DIVISION We purchased Galfon Plastics in the U.S.A. at the end of the last financial year for 4.9 million dollars.

GENERAL SITUATION As you will have gathered from the above the group will not show any substantial headway until there is an improvement in demand for aircraft forgings.

MERCHANTING DIVISION Demand has improved in this division but, with heavy discounting taking place in the motor distribution

COMPANY NEWS IN BRIEF

In a report on the progress at Neepaw, the chairman and managing director Mr S. Speight says the major rationalisation is completed, and he believes the company is in a strong position to look forward positively to growth in activity and profits.

Albright & Wilson Ltd PROGRESS IN 1983

Table with 2 columns: Sales, Trading Profit, Capital Expenditure, Net capital employed (end of year), Return on capital (%). Values for 1983 and 1982.

These figures relate to the group managed by Albright & Wilson, including companies owned directly by Tenneco.

Adams & Gibbon Plc. Extracts from the Chairman's Review. The Vauxhall Opel share of the national new car market increased materially during 1983 and this factor has also been reflected in our improved performance.

DIVIDENDS ANNOUNCED. Bunzl: Current payment 8 pence, Date of payment July 2. R. & H. Hall: Current payment 2.75 pence, Date of payment May 1.

NOTICE TO HOLDERS OF BRIDGESTONE TIRE CO., LTD. NOTICE IS HEREBY GIVEN that, effective as from April 1, 1984, BRIDGESTONE TIRE CO., LTD. has changed its name to BRIDGESTONE CORPORATION.

Granville & Co. Limited. Over-the-Counter Market. Table listing various securities with columns for Price, Change, Dividend, Yield, etc.

A&G Vauxhall Opel, Bedford, Austin Rover, Toyota. Logo and contact information.

LADBROKE INDEX. Based on FT Index 871-875 (-3). Tel: 01-493 5261.

COMPANY NEWS

APPOINTMENTS

CONTRACTS

Mellerware well above forecast

COMPARED WITH a forecast increase of 50 per cent, taxable profits of Mellerware International, aluminium kitchen utensils manufacturer, surged from £540,758 to £944,972 for 1983, a 75 per cent advance.

Turnover of this West Midlands based concern expanded by 42 per cent to £7m and exports during the 12 months increased by over 200 per cent to £401,120.

Mr J. P. Meller, chairman, says that after three months of the current year sales to date and the group's order books are both significantly higher than the same period last year.

"We are therefore optimistic that the current year will again produce very satisfactory results and that we are entering a new phase of expansion."

Commenting on the 1983 figures Mr Meller explains that they were achieved because of the introduction of new ranges of cookware, an automatic hot water jug, electrical products and the first benefits from new important contracts.

"The spread of customers has been widened, overseas sales increased and substantial investments made in manufacturing facilities," the chairman states.

Mr Meller, who joined the United Securities Market in May 1983, achieved profits of

Changes at the Post Office

The POST OFFICE has appointed Mr Peter Milne as director of letter operations, heading the Royal Mail network which handles 40m letters a day. He was director of mails operations. Mr Mike Quality becomes director of parcels operations, which handles 600,000 items daily. At present he is deputy director of mails operations. Mr Sam Hackett has become Post Office secretary. He was deputy director of postal personnel, and takes over from Mr Jerry Baxter.

Mr Michael Edwards yesterday took over as chairman of the ICL Group as chairman of Sir Christopher Liddell who has retired. Dr Robb Wilmet has been made chief executive of the group. He has been managing director since May 1981.

Mr A. C. Liddle, managing director of the non-marine division of JARDINE TOMPKINS GRAHAM, retires on June 30. Mr A. J. Gordon, a director, has been appointed managing director of the non-marine division in succession. Mr S. C. Sampson has been appointed managing director of the marine division from July 1.

ESPAÑA INTERNATIONAL, Hexham, a giftware company, has appointed Mr Tony Stewart as main board director responsible for sales and marketing in the UK and overseas. He was sales director of the UK retail market division.

Mr Stanley R. Jackson, group financial controller, has been appointed to the boards of the two principal Scottish house building subsidiaries, Cala Homes (Lothian) and Cala Homes (Aberdeen) of the CITY OF ABERDEEN LAND ASSOCIATION.

REPUBLICAN DALLAS NA has made the following promotions and appointments. Mr Chandler M. Church, general manager of the London branch and manager of the European division has been promoted to senior vice-president. Mr Nicolas F. Benna, manager of Africa, Middle East, Australia and Canada, in Dallas, has also been promoted to senior vice-president. Mr Richard R. Cloutier, senior vice-president in Dallas, will assume responsibility for the Eastern Hemisphere division and Mr William L. Essner, senior vice-president, becomes credit manager, international department.

Promotions at General Foods

GENERAL FOODS, Banbury, manufacturer of Biscuits, Bird's instant coffee and Bird's desserts has made senior management appointments. Mr David Soffe, managing director for the last three years on the additional post of area director Northern Europe. As well as continuing with his existing responsibilities for the UK and Eire operations, he also assumes responsibility for Scandinavia. Mr Roger Cadbury is being promoted from sales director to deputy managing director. He will continue heading the company's sales operation and will become responsible for the Bird's desserts marketing group. General Foods is a wholly-owned subsidiary of General Foods Corp, New York.

Mr Tom Bartlam, Mr Robin Grant and Mr Howard Rix have been appointed directors of CLARYS ROUGE JAPHER. Mr Ewen Gilmour and Mr Tim Lebus have been appointed assistant directors.

QUALTER HALL & CO, a subsidiary of Matthew Hall, has appointed Mr Geoffrey A. Banks as managing director succeeding Mr Robert Sackall on his retirement. Mr Banks is also director and deputy managing director.

BALTICA-SKANDINAVIA INSURANCE COMPANY (UK) has appointed Mr William E. Barry as managing director from July 1. He has been underwriting for New Rotterdam Insurance Company through W. E. Barry. Baltica-Skandinavien (UK) is a wholly-owned subsidiary of Baltica, Copenhagen.

The Employment Secretary has appointed Mr John Shepherd as

financial director of REMPLOY for an initial period of four years. Mr Shepherd was financial director, foods division, Dageby Spillers.

TADDALE HOTELS EUROPE has appointed Mr W. G. Crossman as chairman and Mr A. J. Rothwell as chief executive of Prince of Wales Hotels. Mr A. M. Clayman has resigned as chairman and managing director.

Mr Alan R. W. Toms has joined the board of INITIAL. He is chief executive of Initial Services, the group's largest trading division.

From April 1 Mr M. J. Caley becomes chairman of LOWNDES LAMBERT CONSTRUCTION. Mr R. J. G. Shaw continues as a director and Mr D. Senior becomes managing director. Mr J. W. Farley is made a director of Lowndes Lambert Marine.

Mr Vincent James has been appointed non-executive chairman of CLARE HALSTEAD GROUP. Since March 1983, Mr Geoffrey Halstead has fulfilled the dual role of chairman and managing director, but has now relinquished that of chairman. Mr Clare, a solicitor, is senior partner of Maurice Rubin and Co. Mr J. S. Leach has retired from the board. Mr F. S. P. Knight (director and group secretary) has been appointed financial director.

Enterprise Oil board posts

ENTERPRISE OIL has appointed Mr Jerry Leonard, Mr Ian MacLaurin and Mr Garth Ramsey to the board as non-executive directors. Mr Leonard is a non-executive director of several companies including North Sea Assets, North Sea and General Oil Investments, and Oil Resources Holdings. He retired seven years ago as group treasurer and as a director of Shell International. Mr MacLaurin is chairman-designate of Resco Stores Holdings. Mr Ramsey is joint deputy chairman of Ivory and Sime, where he is responsible for oil and energy interests. The executive board of Enterprise Oil will be composed of the following: Mr Graham Bearne, chief executive; Dr Myles Bowen, exploration director; Mr Peter Kingston, technical director; and Mr John Walsley, finance director.

Mr Hans Chr. Seeborg has joined WESTPAC BANKING CORPORATION'S London branch, as a regional manager, divisional director, responsible for corporate banking and government relationships in the Nordic countries. He was previously with Bankers Trust Company.

Mr Leon Robertis has been appointed to the board of BRASWAY as a non-executive director. He recently was chairman of the executive division of the National Westminster Bank.

Mr Ian Cater, group financial director, has been promoted to managing director, SETON PRODUCTS.

Mr Brian White has joined FLUOR OCEAN SERVICES in London as senior projects manager. He was a divisional director for project operations with Matthew Hall Engineering.

Mr Michael Cross has been appointed a director of J. AND J. DYSON. He has been a director of Dyson Refractories since 1974.

Mr Ian Catford, has been appointed director of marketing services at SUZUKI GB (CARS) — a Heron Corporation company.

WILLIAMS DE BROE HILL CHAPLIN AND CO, stockbrokers, has formed a wholly-owned subsidiary Williams de Broe International to trade as an international dealer in overseas securities. Directors are Mr E. A. Stanley, Mr D. Ridley, Mr Y. A. Gachoud and Mr P. W. Clarke, who are also directors of the parent company.

RICHARD CLAY PLC has made the following appointments: Mr R. S. M. Clay has been appointed executive vice-chairman in succession to Mr J. Pans Hamilton who will remain a non-

executive director. Mr K. M. Farley has been appointed joint managing director and chief executive, UK operating division. Mr G. J. Icton has been appointed joint managing director with overall responsibility for sales and customer service. Mr R. Boyd, one of the joint managing directors, will be leaving at the end of April to pursue a new and separate enterprise. Mr J. W. C. Myers has been appointed director and general manager, Richard Clay (The Chaucer Press). Mr M. A. Kudar has been appointed director and general manager, Fletcher and Son. Mr A. J. Clay has been appointed UK sales manager.

Mr S. A. Field will retire from the board of WILLIAM BAIRD at the forthcoming annual meeting in May but will continue as president. Mr J. A. Lumsden, a director, will retire at the annual meeting. Mr N. G. Trotter becomes a non-executive director.

New chief at Bridon

BRIDON has appointed Mr David Houghton as chief executive from August. He will take over from Mr Jack Laird, who remains chairman. Mr Houghton joined the board of Bridon in December 1980 as a member of the group executive committee and managing director of British Ropes.

Mr H. G. Clayton, who until recently was head of the plastics and additives division of Ciba-Geigy Japan, is to become managing director of Ciba-Geigy Plastics, a division of CIBA-GEIGY, Duxford, Cambridge.

Mr Bryan J. Rankin has been appointed managing partner of the Edinburgh office of THOMSON McINTOCK AND CO following the retirement of Mr Hugh McMichael. The following become partners: Mr Christopher Fletcher (Edinburgh); Mr John Alexander and Mr Terry Carter (London); Mr Nigel Cooper (Milan); Mr Andrew Pitt (Bristol).

Mr Colin Tombs has been appointed a director and assistant company secretary of PUNCH PUBLICATIONS, a United Newspapers company.

Mr Cyril Spencer has joined the board of CECIL GEE as a non-executive director. He was chairman and chief executive of the Burton group.

£10m refurbishment for Wates

WATES SPECIAL WORKS has secured Inner London refurbishment contracts totalling nearly £10m. The London Borough of Camden has placed the modernisation of 388 post-war flats and maisonettes on the West Kentish Town estate with the company. The £7.6m contract is scheduled to start in May and will take two years to complete and will be undertaken with tenants in place. Other projects include refurbishment of offices at Norwich House for the Hammerson Group, worth over £200,000, taking one year to complete. For Oppenway, part of Grosvenor Square Properties, work to 18 Conduit Street commences this month and the £500,000 contract comprising complete internal office and workshop refurbishment will take 48 weeks to finish. Fitting out of existing offices at 99 Bishopsgate will be undertaken on a fixed fee prime cost contract from Saudi International Bank. Work within the post-war City towerblock is scheduled to commence this month and complete in six months, costing about £900,000.

TURRIFF CONSTRUCTION has been awarded a contract worth about £1.2m by the Home Office for a new kitchen and education block at H.M. Prison, Aylesbury.

BALFOUR BEATTY CONSTRUCTION has been awarded a contract for sheltered housing by Yoker Housing Association. Valued at £1.5m the contract in Langholm Street, Yoker, Glasgow, comprises building 94 homes in two-storey units. Provision is made for landlord's accommodation, a common room, plant room and guest bedrooms. Construction period is 78 weeks. Balfour Beatty is a member of the BICC Group.

WALKERSTEEL REINFORCEMENTS, Grantham, has an order from Tarmac National Construction to supply about 12,000 tonnes of steel reinforcement for the A1(M) link Roostock to Stanborough, Hertfordshire. The contract is for a motorway and tunnel. Value to Walkersteel is about £3m.

DEREK CROUCH CONSTRUCTION CO. has secured a total of £2.5m, including development of the Loch Lomond Hotel at Balloch, into 18 flats and eight houses, worth about £1m. A contract worth £240,000 has been signed with the Edinburgh-based Kirkcaldy Housing Association to build a 33-unit sheltered housing complex in Regent Street, Greenock. Another contract valued at £63,500 has been signed with Gateshead Metropolitan Borough Council. It calls for the construction of an extension to Bede Community Primary School, Old Fold Road,

Gateshead, to provide community meeting and function rooms. Completion is due in the autumn of 1985.

COACHWORK CONVERSIONS has won an order for special-purpose lift-on, lift-off bodies for British Telecom. The £1.7m order is for 1,412 bodies, to be completed during the 12 months April 1984 to March 1985. Tailored to the Leyland Sherpa 255 chassis-cab, each body is 8 ft 8 in long, 6 ft 2 in wide and 6 ft 3 in high.

GRATTE BARRETT & WRIGHT has been awarded a contract approaching £1m, by Countryside Properties, for the design and installation of mechanical, electrical and plumbing services at Barking Primary School. SE12 for the I.E.A. and a £274,000 telephone exchange building in Banstead, Surrey, for British Telecom. In Manchester a £125,000 service station is under way for Esso and also £117,000 restoration work at Liverpool Road Station for the Greater Manchester CC.

A firm contract to refurbish Gordon's Hospital in Vauxhall Bridge Road has been awarded to WIGGINS. Work has begun and is expected to take 12 months. It is being undertaken by Gee Walker and Slater, a Wiggins subsidiary, and was awarded by the Victoria Health Authority.

TUNSTALL TELECOM GROUP has signed a contract worth £1.36m for the provision of equipment for 7,000 supervised homes in Rotherham. The installation will enable the twenty-four hour care service already provided by the council.

Three export contracts worth over £1m for UK-built mailing equipment have been won by FITNEY BOWES. The largest is from Saudi Arabia, where postage meters and cancelling machines worth around £800,000 (SR 4m) are to be used for processing mail at 120 post offices. The Ghana Post & Telegraph Corp has placed a similar order, for meters, bases and spares worth

£180,000 for 130 post offices. The Dutch Government will be installing Pitney Bowes meters and other mailing equipment such as electronic scales in its offices, replacing the system of pre-paid official envelopes which is being phased out.

CORRALL CONSTRUCTION has been awarded two contracts together worth nearly £300,000 by Wealden District Council for the modernisation of 77 houses.

Willett wins £3m work in Nottingham

WILLETT has been awarded a £3m contract to rebuild the old head post office in Nottingham by developer Norfolk Place Properties (Nottingham). The building empty for 11 years, will be demolished with the exception of the front elevation and banking hall. In its place a 38,000 sq ft of offices, 10,000 sq ft of shopping and basement car parking for 34 vehicles is planned. The 240 ft long retained facade, which is Grade II listed, will be cleaned and restored. The catalyst which has brought about the redevelopment has been the approval of a £750,000 urban development grant from the Nottingham City Council, 75 per cent funded by the Department of the Environment. Demolition work begins this month. The new building will be a steel-framed structure and because of the sloping nature of the site, will be five and six storey high. Completion is due in two years. Willett is a Trafalgar House company.

A contract worth £1.2m has been signed by MODAIRE, Bedford, with Slough Borough Council to modernise 200 houses on the authority's Manor Park Estate.

The building services unit of BALFOUR BEATTY CONSTRUCTION, based in the west of Scotland, has won a contract worth £750,000 in Motherwell. Awarded by the Lowland Territorial Auxiliary and Volunteer Reserve Association, the 65-week contract comprises the erection of a two-storey block to accommodate offices, stores, drill hall, training rooms and a caretaker's flat. A detached single-storey steel framed building will also be built to house a miniature rifle range and a garage. Balfour Beatty is part of the BICC Group.

Geo. Oliver revises its reported 1983 results

AFTER CAREFUL consideration of the latest budget, the directors of George Oliver (Footwear) say they feel it prudent to revise figures previously reported on account of the 1983 year.

They explain that in the past no provision for deferred tax on timing differences between profits computed for tax purposes as stated in the financial statements has been made, as capital allowances available for relief were expected to be in excess of the depreciation charge.

Shareholders are told that with the reduction in value of the writing down allowance, this position will not continue, and accordingly a provision for deferred tax of £731,000 has now been included as an extraordinary item. This will have the effect of equalising the tax charge on trading profits in future years—all the other figures remain unaltered. Net profits for 1983 emerged at £1.85m (£1.52m) after tax of £455,000 (£377,000 credit) but before extraordinary credits of £871,000 (£1.04m).

Palma Group 1983 HIGHLIGHTS by Peter Bailey, the Chairman. The year to 31 December 1983 saw the merger of Montfort Knitting Mills with Palma Group and the formation of a new group with an annual turnover exceeding £20 million. Pre-tax profit of £1.24 million for the Palma companies exceeded the forecast of £1.2 million made at the time of the merger. Montfort companies made a trading loss of £728,000 — lower than the figure forecast — and incurred extraordinary costs of £471,000. Since the year-end we have sold two Montfort companies and disposed of empty leased premises resulting in a net cash benefit of £400,000. The remaining Montfort companies are no longer making losses. We have a major investment programme for 1984, which will be financed from group resources. We confirm that, as forecast, we intend to pay a dividend of not less than 2.0p net per share for the year to 31 December 1984. The group is now extremely busy with very good order books and I view the future with considerable confidence.

Promotions at General Foods. GENERAL FOODS, Banbury, manufacturer of Biscuits, Bird's instant coffee and Bird's desserts has made senior management appointments. Mr David Soffe, managing director for the last three years on the additional post of area director Northern Europe. As well as continuing with his existing responsibilities for the UK and Eire operations, he also assumes responsibility for Scandinavia. Mr Roger Cadbury is being promoted from sales director to deputy managing director. He will continue heading the company's sales operation and will become responsible for the Bird's desserts marketing group. General Foods is a wholly-owned subsidiary of General Foods Corp, New York. Mr Tom Bartlam, Mr Robin Grant and Mr Howard Rix have been appointed directors of CLARYS ROUGE JAPHER. Mr Ewen Gilmour and Mr Tim Lebus have been appointed assistant directors. QUALTER HALL & CO, a subsidiary of Matthew Hall, has appointed Mr Geoffrey A. Banks as managing director succeeding Mr Robert Sackall on his retirement. Mr Banks is also director and deputy managing director. BALTICA-SKANDINAVIA INSURANCE COMPANY (UK) has appointed Mr William E. Barry as managing director from July 1. He has been underwriting for New Rotterdam Insurance Company through W. E. Barry. Baltica-Skandinavien (UK) is a wholly-owned subsidiary of Baltica, Copenhagen. The Employment Secretary has appointed Mr John Shepherd as

Hawley Group PLC. Hawley Group PLC and its subsidiaries and associates have substantial interests in three prime growth areas: Security and protection of property, Cleaning and maintenance services, Home improvements. The number of employees and profits earned from subsidiary companies are evenly spread between the United States and Great Britain. The objectives of the group are to grow both organically and by acquisition, using the strength of the innovative management team to seize opportunities. All businesses are strong in cash and low in capital requirements, and as a consequence have a high return on capital employed. These strengths and spread of activities are designed to achieve success. 6 YEAR RECORD table showing turnover, profit before taxation, and earnings per share from 1978 to 1983. Extracts from The Chairman's Statement from the 1983 Report and Accounts: "The mainstream businesses enjoyed favourable trading conditions in 1983 and I am optimistic that these conditions will continue for the current year which has certainly started well. If it continues as we expect, the company will maintain its progressive dividend policy in 1984. I am confident that 1984 will be another excellent year." Michael A Ashcroft, 26 March, 1984. For a copy of Hawley Group PLC 1983 Report & Accounts, contact: The Company Secretary, Hawley Group PLC, Prospect House, The Broadway, Farnham Common, Slough, Berkshire.

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# MINING NEWS

## Vaal Reefs plans record capital spending

## Harbour Lights ready to go with 5.5m tonnes

BY KENNETH MARSTON, MINING EDITOR

THE capital spending programme announced for this year at the Anglo American Corporation group's Vaal Reefs gold and uranium mine is the highest on record says the chairman, Mr Peter Gush in the annual report.

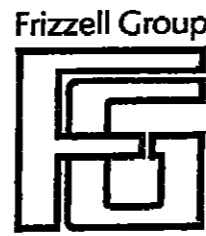
FIRST ore reserves are based on a 1.5 grammes cut-off grade and an estimated mill recovery rate of 90 per cent. Using 500,000 tonnes per year as the most likely production rate, Esso estimates head grades at 5.5g and 5g gold per tonne respectively for the first two years of operations.

This conservative estimate is based on a 1.5 grammes cut-off grade and an estimated mill recovery rate of 90 per cent. Using 500,000 tonnes per year as the most likely production rate, Esso estimates head grades at 5.5g and 5g gold per tonne respectively for the first two years of operations.

water resources are available to satisfy all the proposed mining and processing needs. These reserves include those at Harbour Lights West but refer only to the proposed open-pit operation. They do not include the deeper ore reserves which are known to exist but which have not yet been evaluated.

# 'Group profits advance 30%'

reports Colin Frizzell, Chairman, in his statement with the Report and Accounts for the year to 31 December, 1983.



THE FRIZZELL GROUP LIMITED

1983 Group profit advanced 30% to a record £4,526,000 and trading profit included in that figure increased by almost 100%.

Earnings per share rose to 13.4p from 9.7p.

Dividends increased to 4.00p per share from 3.00p.

U.K. Broking Division has now completed its reorganisation and is settling down well. Contractors' insurance again produced encouraging results. Life & Pensions had a particularly profitable year and advantage has been taken of a substantial opportunity for expansion.

Motor and General Division showed a general improvement, resulting largely from increasingly better service to clients.



Financial Services Division. Shawlands Securities experienced growing demand for all aspects of its services. The company had record profits again this year, up 53% to over £1m for the first time.

International Broking Division. Frizzell Hicks, predominantly involved in Marine Hull insurance, again contributed very satisfactorily.

Special Services Division. Newly formed to accommodate specialist joint venture subsidiaries. Norman Frizzell Professional Indemnity — again another highly successful year in the field of errors and omissions insurance.

Acquisition. Insurance Broking interests of the F. Bolton Group acquired with turnover of £3.9m, taking the Group into the areas of Aviation Reinsurance, Marine Cargo, Farming and American dollar surplus line placements direct into London.

Copies of the Report and Accounts are available from The Secretary.

The Frizzell Group Limited

Registered Office: Frizzell House, 14-22 Elder Street, London E1 6DF.

## Bindura losses sharply ahead

ZIMBABWE'S Bindura Nickel Corporation, the country's sole nickel producer since the closure two years ago of the Empress mine, incurred a sharply higher net loss of £28.3m (£5.8m) in 1983. This compares with the net loss of £26.3m in 1982, reports Tony Hawkins in Harare.

South Africa's Anglo American Corporation, said that the rise in turnover reflected the 30 per cent depreciation of the Zimbabwe currency since 1982, and also a reduction in metal stocks. The company sold 12,400 tonnes of nickel last year, which was 2,300 tonnes above the year's production.

Bindura said that the net loss would have been £22.5m higher had interest been payable on the loan from its parent company, Anglo American of Zimbabwe. Interest will be payable on this loan from many years expected. The company's hopes of a return to profitability and the payment of dividends, both of which look to be several years away, are pinned to a rise in nickel prices. Bindura estimates that a rise of 10 cents per pound in the nickel price adds something like £22.5m to revenues.

## Negotiations progress at Broken Hill

FOLLOWING an "action first" talk later this week, the Australian mine management and unions at Broken Hill in New South Wales are now locked in negotiations, but neither side is prepared to comment on progress at this stage.

## Nippon Mining finds high precious metal values

PROMISING GOLD and silver veins have been discovered by Toyoha Mining, a wholly-owned subsidiary of Nippon Mining, at a mine near the town of Sapporo on Hokkaido Island, the northernmost island of the Japanese archipelago.

Record profits of perhaps ¥20bn are predicted for the year to March 31, 1985, on the back of a recovery in non-ferrous metal prices and falling oil prices.

At the weekend, a mass meeting of the miners voted to give their union executive full authority to negotiate a settlement of the wage dispute.

News agency reports put the gold values at between 43 and 120 grammes per tonne, extremely high by world standards, along with between 1,600 and 4,200 grammes of silver. More drilling is needed to determine the size of the deposit.

Hamilton Oil Corporation has received acceptances of its offer for Hamilton Oil Great Britain in respect of 61,899,402 shares, representing about 87 per cent of capital.

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### In Brief

AMERICA'S AMAX has now returned to profit after two consecutive years of loss. Mr Pierre Gousseland, chairman, has told news agencies in an interview that he expects the big group to be back in profit in the first quarter of this year, compared with earlier forecasts of an overall 1984 profit.

Mining has entered a gold exploration and development joint venture with Australian Anglo American at an area 2.5 km from Pancontinental's Paddington gold project in Western Australia.

The U.S.\$90m (£55.3m) Areo diamond venture in Guinea is to start production on schedule next week despite the postponement of the ceremonial opening following the death of President Touré.

Phillex Mining Corporation, one of the "big five" producers in the Philippines, made net profits last year of Pesos 290m (£14.5m), up from Pesos 178m in 1982, with Pesos 30m of the latest figure coming from investment income.

Compagnie Royale Asturienne des Mines, the Belgian metals processing and mining group, has returned to profit, with net earnings of Bfr 13.4m (£175,000) for 1983 compared with a net loss of Bfr 61m.

Asturienne is associated with the big holding company Societe Generale de Belgique.

Forum Hotel Budapest advertisement. Located in the heart of Budapest, on the Pest side of the historical Chain Bridge, overlooking the Danube, the FORUM HOTEL BUDAPEST is within walking distance of the business, cultural and entertainment center of the city. 408 luxuriously appointed, air-conditioned rooms with bath, private bath, direct dial telephone, minibar, radio and colour TV with English and German speaking in-house movies. 24-hour room service. Same day laundry and valet.

BASE LENDING RATES table with columns for bank names and interest rates. Includes entries for A.B.N. Bank, Allied Irish Bank, Amro Bank, etc.



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SECTION III - INTERNATIONAL MARKETS
FINANCIAL TIMES

Tuesday April 3 1984

Manchester Business School
EXECUTIVE APRIL & OCTOBER
DEVELOPMENT PROGRAMME
A SOUND CAREER INVESTMENT IN LEARNING BY DOING...

WALL STREET

Argentine accord helps ease fears

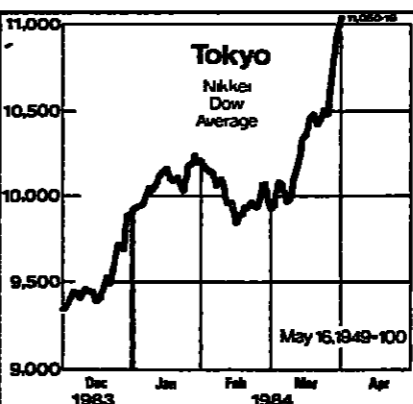
THE SUCCESSFUL outcome of the Argentine debt negotiations, together with further evidence on the strength of the U.S. economy, brought firmness in both stock and bond markets on Wall Street yesterday, writes Terry Byland in New York. The credit sector was hesitant, however, after the announcement of a 6.9 per cent jump in construction orders in February reawakened all the old fears of an overheating economy.

The short-term outlook for interest rates remains cloudy; the federal funds rate edged up again yesterday and the prospect of another rise in prime rates by the banks was not ruled out in the credit market. However, the stock market seems to have discounted any further move in prime rates, or even in the Fed's discount rate, and there are expectations that upward pressures on interest rates will slacken as the expected slowdown in economic expansion begins to show through.

Other heavy industrials to show minor gains included Ford Motor, 3/4% higher at \$37 1/2; International Paper, 3/4% up at \$53 3/4; and Raytheon, \$1 better at \$38 1/2. In the banking sector, the Argentine debt agreement, which has avoided serious write-offs against the earnings of U.S. creditor banks, brought a gain of \$1 1/4 to \$36 1/2 in Manufacturers Hanover and of \$ 1/2 to \$34 1/2 in Citicorp, the two which carry the major burden of the debt.

TOKYO
Six of the best but slacker pace

Reflecting Hitachi's strong performance, other international populars gained ground, with Matsushita Electric Industrial surging Y50 to Y1,950 and Toyota Motor Y40 to Y1,410. Konishiroku Photo was bought heavily in early trading on its development of a colour printing paper which is claimed to preserve printed colours for 100 years. The stock registered a maximum allowable rise of Y100 to Y765.



package enacted at the weekend. The exchange's general index edged just 0.06 lower at 146.72, while a BFr 50 fall in market leader Petrofina at BFr 7,230 was viewed by local operators as indicating no fundamental disquiet. UCB in chemicals was among those to gain, up BFr 45 to BFr 4,870. A main-tained net dividend from retailer GB-Inno-BM brought it a BFr 5 firmer result at BFr 3,120.

KEY MARKET MONITORS

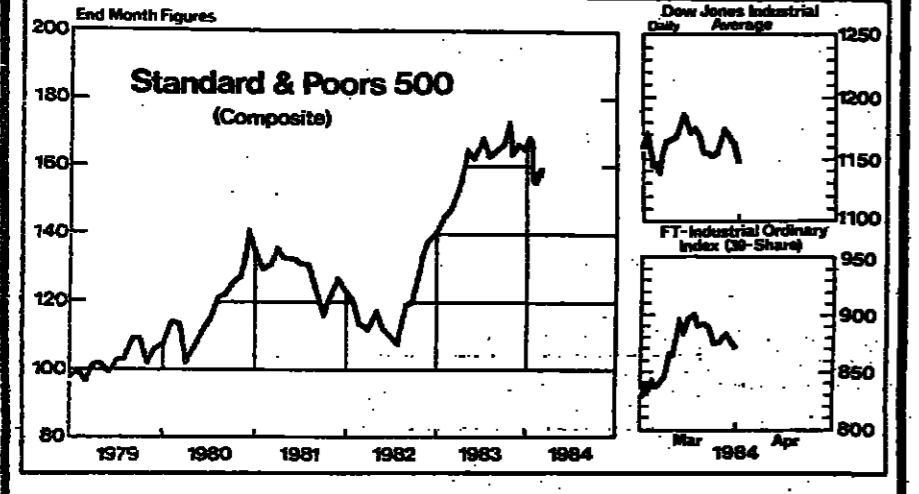


Table with multiple columns: STOCK MARKET INDICES (NEW YORK, LONDON, TOKYO, AUSTRALIA, AUSTRIA, BELGIUM, CANADA, DENMARK, FRANCE, WEST GERMANY, HONG KONG, ITALY, NETHERLANDS, NORWAY, SINGAPORE, SOUTH AFRICA, SPAIN, SWEDEN, SWITZERLAND, WORLD), CURRENCIES, INTEREST RATES, U.S. BONDS, FINANCIAL FUTURES, SOUTH AFRICA, COMMODITIES.

LONDON
THE OPTIMISTIC outlook provided on export prospects by the Confederation of British Industry failed to generate any enthusiasm in London and leading shares, after a promising start, gave up small gains to close widely lower on the session.

The FT Industrial Ordinary index captured the early firmness with a gain of 1.6. But the advance was given up, and by the close the index was down 6.2 on the day at 870.8, its lowest level since March 14.

EUROPE
Ready but still waiting
ISOLATED corporate events provided the only pointers to trading enthusiasm yesterday in a session which left the European bourses much as they started - attuned to any further glimmers of a Wall Street revival, generally holding steady, but bereft of the volume of business needed to fuel a substantial advance.

Brussels held up well in the face of the general strike called for today to oppose the implementation of the austerity

HONG KONG
THE SLIDE in share values in Hong Kong was apparently judged to have gone far enough yesterday. The market again opened easier with the Hang Seng index dipping a further 32.55 to 981.83 at mid-morning. However, at this level, both local and foreign investors decided the time was ripe to re-enter the fray as bargain hunters, boosting the index to 1,023.96, for a gain on the day of 9.58.

SINGAPORE
INTEREST RATE uncertainties in the wake of recent rises in bank prime rates left Singapore lower. Projections from Bank Negara that large budget and current account deficits would retard Malaysian economic growth also depressed sentiment.

AUSTRALIA
QUIET TRADING greeted the first day of deregulated brokerage rates in Sydney, and shares ended mixed. The All Ordinaries index which was down more than 4 at one stage, rallied to end 1.4 easier on the day at 749.1.

CANADA
MODEST gains by the oil, metals and utilities sectors more than offset a sharp reverse by golds in Toronto and the market traded marginally higher. In Montreal, small advances were achieved by industrials, utilities and banks, but papers were slightly easier.

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# NEW YORK STOCK EXCHANGE COMPOSITE PRICES

Prices at 3pm, April 2

12 Month High	Low	Stock	Dr. Ym. E 100s High	Low	12 Month High	Low	Stock	Dr. Ym. E 100s High	Low	12 Month High	Low	Stock	Dr. Ym. E 100s High	Low	12 Month High	Low	Stock	Dr. Ym. E 100s High	Low
25.45	24.75	AAA	22.15	21.5	25.45	24.75	AAA	22.15	21.5	25.45	24.75	AAA	22.15	21.5	25.45	24.75	AAA	22.15	21.5
25.45	24.75	ABC	22.15	21.5	25.45	24.75	ABC	22.15	21.5	25.45	24.75	ABC	22.15	21.5	25.45	24.75	ABC	22.15	21.5
25.45	24.75	DEF	22.15	21.5	25.45	24.75	DEF	22.15	21.5	25.45	24.75	DEF	22.15	21.5	25.45	24.75	DEF	22.15	21.5
25.45	24.75	GHI	22.15	21.5	25.45	24.75	GHI	22.15	21.5	25.45	24.75	GHI	22.15	21.5	25.45	24.75	GHI	22.15	21.5
25.45	24.75	JKL	22.15	21.5	25.45	24.75	JKL	22.15	21.5	25.45	24.75	JKL	22.15	21.5	25.45	24.75	JKL	22.15	21.5
25.45	24.75	MNO	22.15	21.5	25.45	24.75	MNO	22.15	21.5	25.45	24.75	MNO	22.15	21.5	25.45	24.75	MNO	22.15	21.5
25.45	24.75	PQR	22.15	21.5	25.45	24.75	PQR	22.15	21.5	25.45	24.75	PQR	22.15	21.5	25.45	24.75	PQR	22.15	21.5
25.45	24.75	STU	22.15	21.5	25.45	24.75	STU	22.15	21.5	25.45	24.75	STU	22.15	21.5	25.45	24.75	STU	22.15	21.5
25.45	24.75	VWX	22.15	21.5	25.45	24.75	VWX	22.15	21.5	25.45	24.75	VWX	22.15	21.5	25.45	24.75	VWX	22.15	21.5
25.45	24.75	YZA	22.15	21.5	25.45	24.75	YZA	22.15	21.5	25.45	24.75	YZA	22.15	21.5	25.45	24.75	YZA	22.15	21.5
25.45	24.75	BCD	22.15	21.5	25.45	24.75	BCD	22.15	21.5	25.45	24.75	BCD	22.15	21.5	25.45	24.75	BCD	22.15	21.5
25.45	24.75	EFG	22.15	21.5	25.45	24.75	EFG	22.15	21.5	25.45	24.75	EFG	22.15	21.5	25.45	24.75	EFG	22.15	21.5
25.45	24.75	HIJ	22.15	21.5	25.45	24.75	HIJ	22.15	21.5	25.45	24.75	HIJ	22.15	21.5	25.45	24.75	HIJ	22.15	21.5
25.45	24.75	KLM	22.15	21.5	25.45	24.75	KLM	22.15	21.5	25.45	24.75	KLM	22.15	21.5	25.45	24.75	KLM	22.15	21.5
25.45	24.75	NOP	22.15	21.5	25.45	24.75	NOP	22.15	21.5	25.45	24.75	NOP	22.15	21.5	25.45	24.75	NOP	22.15	21.5
25.45	24.75	QRS	22.15	21.5	25.45	24.75	QRS	22.15	21.5	25.45	24.75	QRS	22.15	21.5	25.45	24.75	QRS	22.15	21.5
25.45	24.75	TUV	22.15	21.5	25.45	24.75	TUV	22.15	21.5	25.45	24.75	TUV	22.15	21.5	25.45	24.75	TUV	22.15	21.5
25.45	24.75	WXY	22.15	21.5	25.45	24.75	WXY	22.15	21.5	25.45	24.75	WXY	22.15	21.5	25.45	24.75	WXY	22.15	21.5
25.45	24.75	ZAB	22.15	21.5	25.45	24.75	ZAB	22.15	21.5	25.45	24.75	ZAB	22.15	21.5	25.45	24.75	ZAB	22.15	21.5
25.45	24.75	CDE	22.15	21.5	25.45	24.75	CDE	22.15	21.5	25.45	24.75	CDE	22.15	21.5	25.45	24.75	CDE	22.15	21.5
25.45	24.75	FGH	22.15	21.5	25.45	24.75	FGH	22.15	21.5	25.45	24.75	FGH	22.15	21.5	25.45	24.75	FGH	22.15	21.5
25.45	24.75	IKL	22.15	21.5	25.45	24.75	IKL	22.15	21.5	25.45	24.75	IKL	22.15	21.5	25.45	24.75	IKL	22.15	21.5
25.45	24.75	JMN	22.15	21.5	25.45	24.75	JMN	22.15	21.5	25.45	24.75	JMN	22.15	21.5	25.45	24.75	JMN	22.15	21.5
25.45	24.75	OPQ	22.15	21.5	25.45	24.75	OPQ	22.15	21.5	25.45	24.75	OPQ	22.15	21.5	25.45	24.75	OPQ	22.15	21.5
25.45	24.75	RST	22.15	21.5	25.45	24.75	RST	22.15	21.5	25.45	24.75	RST	22.15	21.5	25.45	24.75	RST	22.15	21.5
25.45	24.75	UVW	22.15	21.5	25.45	24.75	UVW	22.15	21.5	25.45	24.75	UVW	22.15	21.5	25.45	24.75	UVW	22.15	21.5
25.45	24.75	XYZ	22.15	21.5	25.45	24.75	XYZ	22.15	21.5	25.45	24.75	XYZ	22.15	21.5	25.45	24.75	XYZ	22.15	21.5

## Kidder, Peabody International

Limited

### International Investment Bankers

An affiliate of

## Kidder, Peabody & Co.

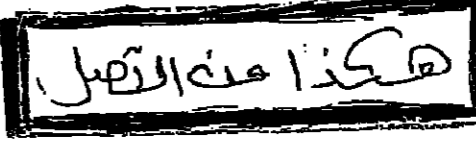
Incorporated

Founded 1853

New York • London • Paris • Geneva • Zurich • Hong Kong • Tokyo



Continued on Page 27



AMERICAN STOCK EXCHANGE COMPOSITE PRICES

Prices at 3pm, April 2

Main table of American stock exchange composite prices, organized in columns by industry sector (e.g., Chemicals, Electronics, Food, etc.). Each entry includes stock name, price, and change.

Continued on Page 28

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

Main table of New York stock exchange composite prices, organized in columns by industry sector (e.g., Chemicals, Electronics, Food, etc.). Each entry includes stock name, price, and change.

Continued on Page 28

Notes and footnotes regarding the data, including a disclaimer: 'Sales figures are unofficial. Yearly highs and lows reflect the previous 52 weeks plus the current week, but not the latest trading day...' and a legend for dividend types.

WORLD STOCK MARKETS

Nasdaq national market 3pm prices

Table of world stock markets including Austria, Germany, Norway, Australia, Japan, and others. Columns include country, date, price, and change.

OVER-THE-COUNTER

Table of over-the-counter stock prices with columns for stock name, price, and change.

LONDON

Table of London stock prices and changes, including a list of companies and their current prices.

Table of American stock exchange prices, including a section for Toronto and a large table of various stocks.

AMERICAN STOCK EXCHANGE PRICES

Table of American stock exchange prices with columns for stock name, price, and change.

NEW YORK PRICES

Table of New York stock prices with columns for stock name, price, and change.

AMERICAN STOCK EXCHANGE PRICES

Table of American stock exchange prices with columns for stock name, price, and change.

WORLD ECONOMIC INDICATORS

every Monday in the Financial Times

WORLD VALUE OF THE DOLLAR

every Friday in the Financial Times

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LONDON STOCK EXCHANGE

MARKET REPORT

RECENT ISSUES

Equity leaders drift back after promising start on optimistic CBI survey

Account Dealing Dates
\*First Declared Last Account
Dealings Close Day
Mar 26 Apr 5 Apr 8 Apr 16
Apr 9 Apr 26 Apr 27 May 8
Apr 30 May 10 May 11 May 21

The most optimistic predictions on UK manufacturing industry for five years made scant impression on London stock markets yesterday. Investors were unable to muster any enthusiasm over the Confederation of British Industry's bright view of export prospects and leading shares, after a promising start, gave up small gains to close widely lower on the session.

Occasional end-financial year selling aggravated the drift lower in markets conscious of the temptation facing investors to cash in the sizeable gains of recent months before or shortly after the current tax year ends on Thursday. Other deterrents to short-term operators were the absence of a bumper crop from this week's schedule of trading announcements, and the prospect of an extended trading account covering the Easter holiday, when the current period ends on Friday.

The FT Industrial Ordinary share index captured the early firmness with a 10 am gain of 1.6. An hour later this was transformed into a net loss of 3.2 and at each subsequent count the index went lower to close 6.2 down on the day at 2319.5, its lowest level since March 14. Features among situation stocks were far less frequent although Commercial Union Assurance continued to attract demand; speculation that the group was about to dispose of its U.S. interests brought a close of 5 up at 231p, after 230p.

Stanley's introduction to the Unlisted Securities Market caused some confusion yesterday; dealings took place at around 110p but the bargains were later cancelled because permission to deal had not been granted by the Stock Exchange. A statement is expected later this week.

Slightly better U.S. bond values late on Friday encouraged a steady opening tone in Government securities. But sterling's renewed easiness against the dollar exerted selling pressure and longer-dated Gilts moved progressively easier to close at net 1/2 lower in places. The shorts were similarly affected and settled with falls ranging to 4.

CU feature again

A weekend Press suggestion that Commercial Union was close to finalising the sale of its U.S. interests to American International Casualty and Surety and Casualty assured another lively speculative trade in CU; the shares, after last week's leap of 41, advanced initially to a new peak of 230p before closing a net 5 up on the day at 231p. Other Composites were more subdued, however, with Phoenix closing unaltered at 478p ahead of tomorrow's preliminary results.

FT-ACTUARIES SHARE INDICES

These indices are the joint compilation of the Financial Times, the Institute of Actuaries and the Faculty of Actuaries

Table with columns: EQUITY GROUPS & SUB-SECTIONS, Mon April 2 1984, Fri Mar 30, Thurs Mar 29, Wed Mar 28, Tues Mar 27, Year ago (approx). Rows include Capital Goods, Building Materials, Contracting, Electronics, etc.

FIXED INTEREST

Table with columns: PRICE INDICES, Mon Apr 2, Day's change %, Fri Mar 30, etc. Rows include British Government, 5 years, 10 years, etc.

FINANCIAL TIMES STOCK INDICES

Table with columns: Government Securities, Fixed Interest, Industrial, Gold Mines, etc. Rows show values for April 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, and year ago.

HIGHS AND LOWS S.E. ACTIVITY

Table with columns: Govt. Secs., Fixed Int., Ind. Ord., Gold Mines. Rows show High and Low values for 1983/84 and since completion.

Hickson International improved 4 to 387p; the annual results are due on Thursday. Leading Stores drifted lower for want of support. Gussies A lost 8 to 665p and British Home Retailers 4 to 231p, while Marks and Spencer edged 2 to 265p. Elsewhere, Goodman Bros advanced 2 1/2 to 16p in response to Press comment, while Compendium English improved 2 to 75p for the same reason. Citicorp gained 5 to 145p following details of the sale of its 1.25m shares in James Walker Goldsmith to H. Samuel. A "sell" recommendation clipped 3 from Rediffusion at 31p.

Micro business up

Leading Electricals followed the general trading pattern and falls of 6 were marked against ELEC, 25p, and Plessey, 23p. Elsewhere, Micro Business Systems featured with a gain of 30 to 495p in response to Press mention of a new contract. In contrast, Sea Bailey continued to draw strength from the good interim figures and gained 5 to 195p. A 1983-84 peak of 45p. Buying to the good at 150p. Mital rallied 25 to 585p; after last week's sharp setback following the sale of 2.4m shares by the chairman, Dr Michael Cowland. Sound Diffusers, down 4 to 140p, failed to benefit from news of the proposed acquisition of Alpha Lifts, while Cable and Wireless came back 8 to 345p after last Friday's late upward flurry.

Pilkington lower

Occasional selling and lack of support saw the miscellaneous industrial leaders drift a few pence lower. Bowater, a strong feature last week on the proposed demerger of its U.S. interests, encountered fresh profit-taking and eased to 318p before closing only 3 cheaper on the day at 320p. Beckitt and Coleman were noteworthy for a fall of 10 to 495p, while Pilkington Bros, still reflecting fading bid hopes, gave up 7 at 316p. Cowan de Groot responded

to week-end Press mention with a rise of 5 to 39p. Others to benefit from comment included Spring Ram, up 8 at 180p, and Dalgety, 4 better at 47p. Johnson Matthey drifted lower to close 5 cheaper at 265p. Scattered offerings, while falls of 5 were marked against BET Deferred, 265p, Grippero, 265p, and LRC International, 100p. Hong Kong stocks traded on a steady note after last week's setback following Jardine Matheson's decision to change domicile. JM Harwood 3 to 93p and Hutchison Wharfedale rallied 5 to 158p.

Paper/Printings were highlighted by Buxal which jumped 23 to 465p in response to the proposed 100 per cent scrip-issue, bumper preliminary figures and confident remarks concerning current year prospects. Secondary issues provided the main features in Properties. Amalgamated Estates slumped to 3p prior to closing a net 3p down at 91p following the increased half-year deficit and news that Linden Holdings' proposed purchase of a 19.3 per cent stake in the company had not been completed. Country and Newtown, a rising market recently, lost 5 to 94p.

P & O Deferred improved initially to 297p but drifted back on lack of follow-through support to close unaltered at 295p. Robert H. Lowe featured Textiles, rising 10 to 48p on speculative buying. North Sea oil explorers attracted further attention following an optimistic statement by the exploration director of Occidental, operator of the consortium about to commence drilling of the most northerly and deepest well yet in the North Sea. LASMO and Saxon Oil, which hold interests of 25 per cent and 10 per cent respectively in the Occidental well on Block 219/20, were major beneficiaries. LASMO raced ahead to 315p prior to closing a net 10 up at 305p and Saxon Oil jumped to a year's best of 345p before ending the day 45 firmer on balance at 337p. Shell moved up 13 to 643p aided by another strong performance on the Amsterdam bourse by Royal Dutch, which improved almost 4 to 1983-84 high of 537p. BP attracted persistent demand throughout the session and eventually closed 10 to the good at 480p.

Irish exploration issues, however, continued their recent dismal performance. Widespread sell-off in the sector followed as Fordwell has failed to produce oil in commercial quantities led to renewed and heavy selling of participant Atlantic Resources, which plummeted to 290p before closing a net 100 lower at 320p - a fall of 190p in the last two trading days.

Friday's Active Stocks

Table with columns: Stock, changes close, Day's change. Rows include Atlantic Resources, BP, Shell, etc.

MONTHLY AVERAGES OF STOCK INDICES

Table with columns: Financial Times, Industrial Ordinary, FT-SE 100. Rows show March, Feb., Jan., Dec. averages.

EUROPEAN OPTIONS EXCHANGE

Table with columns: Series, Vol., May, Last, Aug., Last, Nov., Last, Stock. Rows include GOLD, SILVER, AMRO, etc.

EQUITIES

Table with columns: Issue, Price, 1983/84, Stock, Closing Price, etc. Rows include various equity issues.

NEW HIGHS AND LOWS FOR 1984

Table with columns: Issue, Price, 1983/84, Stock, Closing Price, etc. Rows include various equity issues.

RIGHTS OFFERS

Table with columns: Issue, Price, 1983/84, Stock, Closing Price, etc. Rows include various rights offers.

OPTIONS

Table with columns: First Deal, Last Deal, Last Declared, Settlement Date. Rows include various options.

RISES AND FALLS YESTERDAY

Table with columns: British Funds, Foreign Bonds, etc. Rows show rises and falls.

ACTIVE STOCKS

Table with columns: Stock, price change, Day's change. Rows include various active stocks.

LONDON TRADED OPTIONS

Table with columns: Option, Apr., July, Oct., May, Aug., Nov. Rows include various options.

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FT LONDON SHARE INFORMATION SERVICE

HOTELS—Continued

BRITISH FUNDS

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'Shorts' (lives up to five years) and 'Five to Fifteen Years'.

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'Five to Fifteen Years' and 'Over Fifteen Years'.

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'Over Fifteen Years' and 'Undated'.

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'Undated' and 'Index-Linked'.

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'Index-Linked' and 'INT. BANK AND O'SEAS GOVT STERLING ISSUES'.

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'INT. BANK AND O'SEAS GOVT STERLING ISSUES' and 'CORPORATION LOANS'.

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'CORPORATION LOANS' and 'COMMONWEALTH AND AFRICAN LOANS'.

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'COMMONWEALTH AND AFRICAN LOANS' and 'LOANS'.

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'LOANS' and 'Public Board and Ind.'.

Table of British Funds with columns for Name, Price, and Dividend. Includes sub-sections for 'Public Board and Ind.' and 'FOREIGN BONDS & RAILS'.

AMERICANS

Table of American Stocks with columns for Name, Price, and Dividend. Includes sub-sections for 'AMERICANS' and 'CANADIANS'.

CANADIANS

Table of Canadian Stocks with columns for Name, Price, and Dividend.

BANKS, H.P. AND LEASING

Table of Banks, H.P. and Leasing with columns for Name, Price, and Dividend.

BEERS, WINES AND SPIRITS

Table of Beers, Wines and Spirits with columns for Name, Price, and Dividend.

FOREIGN BONDS & RAILS

Table of Foreign Bonds and Rails with columns for Name, Price, and Dividend.

BUILDING INDUSTRY, TIMBER AND ROADS

Table of Building Industry, Timber and Roads with columns for Name, Price, and Dividend.

CHEMICALS, PLASTICS

Table of Chemicals and Plastics with columns for Name, Price, and Dividend.

DRAPERY AND STORES

Table of Drapery and Stores with columns for Name, Price, and Dividend.

ENGINEERING

Table of Engineering with columns for Name, Price, and Dividend.

DRAPERY & STORES—Cont.

Table of Drapery and Stores (Continued) with columns for Name, Price, and Dividend.

ELECTRICALS

Table of Electricals with columns for Name, Price, and Dividend.

ENGINEERING—Continued

Table of Engineering (Continued) with columns for Name, Price, and Dividend.

ENGINEERING—Continued

Table of Engineering (Continued) with columns for Name, Price, and Dividend.

FOOD, GROCERIES, ETC

Table of Food, Groceries, Etc with columns for Name, Price, and Dividend.

HOTELS AND CATERERS

Table of Hotels and Caterers with columns for Name, Price, and Dividend.

Table of Industrial (Miscellaneous) with columns for Name, Price, and Dividend.



INDUSTRIALS—Continued

Table of industrial stocks including companies like BHP, Anglo American, and various mining and resource firms.

LEISURE—Continued

Table of leisure and consumer goods stocks including companies like Unilever, Nestle, and various food and beverage firms.

PROPERTY—Continued

Table of property and real estate stocks including companies like British Land, Guinness, and various real estate investment trusts.

INVESTMENT TRUSTS—Cont.

Table of investment trusts including various equity and bond funds.

OIL AND GAS—Continued

Table of oil and gas stocks including companies like Shell, BP, and various energy firms.

NOMURA INTERNATIONAL LIMITED advertisement for new era investment and underwriting services.

MINES—Continued

Table of mining stocks including various gold, silver, and copper mining companies.

MOTORS, AIRCRAFT TRADES

Table of motor and aircraft trade stocks including companies like Rolls Royce and various automotive firms.

MOTORS AND CYCLES

Table of motor and cycle stocks including companies like Honda and various motorcycle manufacturers.

COMMERCIAL VEHICLES

Table of commercial vehicle stocks including companies like Ford and various truck manufacturers.

COMPONENTS

Table of component stocks including various electronic and mechanical parts manufacturers.

GARAGES AND DISTRIBUTORS

Table of garage and distributor stocks including various automotive service and parts companies.

SHOES AND LEATHER

Table of shoe and leather goods stocks including companies like Burberry and various footwear manufacturers.

NEWSPAPERS, PUBLISHERS

Table of newspaper and publishing stocks including companies like News International and various media firms.

TEXTILES

Table of textile stocks including various clothing and fabric manufacturers.

PAPER, PRINTING ADVERTISING

Table of paper, printing, and advertising stocks including various media and publishing companies.

TOBACCO

Table of tobacco stocks including various tobacco companies.

TRUSTS, FINANCE, LAND

Table of trusts, finance, and land stocks including various investment and financial firms.

PROPERTY

Table of property stocks including various real estate and land development companies.

INSURANCES

Table of insurance stocks including various insurance companies.

LEISURE

Table of leisure stocks including various consumer and entertainment firms.

PROPERTY

Table of property stocks including various real estate and land development companies.

INVESTMENT TRUSTS

Table of investment trusts including various equity and bond funds.

OIL AND GAS

Table of oil and gas stocks including various energy firms.

MINES

Table of mining stocks including various gold, silver, and copper mining companies.

AUTHORISED UNIT TRUSTS

Table listing various unit trusts such as British Equities, International, and Bond funds, including their names and brief descriptions.

Table listing various unit trusts such as British Equities, International, and Bond funds, including their names and brief descriptions.

FT UNIT TRUST INFORMATION SERVICE

Main table of unit trusts with columns for Name, Type, and other details. Includes sections for 'Newly Issued' and 'Insurances'.

Table listing insurance companies and their services, including Allianz, Avon, and others.

Table listing insurance companies and their services, including Allianz, Avon, and others.

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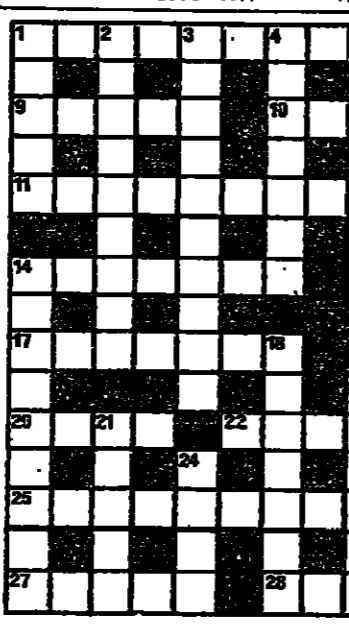
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F.T. CROSSWORD PUZZLE No. 5383

- ACROSS
1 Sailors of Avon? (4, 5)
2 Seal and cook (5)
3 Information from fabulous monster, in short (5)
4 Rock where brig capized—place of sacrifice (9)
5 Jazzy sort of dance with Topsy (10)
6 Escapal game? (4)
7 Sea-beast fed among locks, perhaps (7)
8 Material for Welsh and Greek characters (7)
9 Exit from store 100 with a cry (4, 3)
10 Nothing left in store to betray? (4, 3)
11 Tomboy's caper (4)
12 Possibly functional conclusion of fight (5, 5)
13 Article on food in net for New England island (9)
14 Nitro maybe inactive (5)
15 Rustic in bondage to the pound (5)
16 Old woman entertains doctor up on boat—no easy task (4, 5)
17 Trouble caused by crashing into a cliff (10)
18 Paul becomes (with mother on the wagon) a marshal (9)
19 Income from volume coming up—about two-thirds of it Northern (9)
20 Lean on king's ring: that's your opinion? (5, 2)
21 Prize ran to get going (5, 2)
22 Pole in fur in Russia (5)
23 I leave a painter, a superman (5)
24 Sort of key, perhaps, for rising archbishop (4)



Solution to Puzzle No. 5382

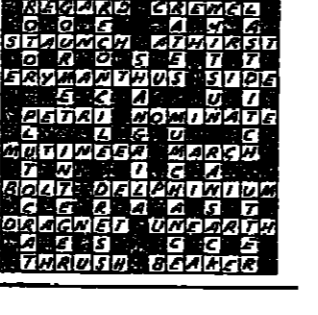


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- DOWN
1 Go up in transport that's the fake (5)
2 They are weeded out from the unfinished piece of cricket (9)
3 Foot prints out the easy way (4, 6)
4 Kit's sledge incorporating a silencer (7)
5 Topic dependent on another (7)
6 Insincere elements in drama? (4-5)

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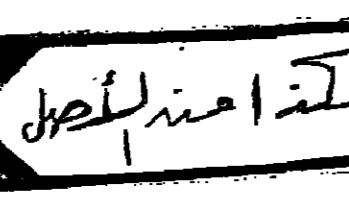


Table listing insurance companies and their services, including Allianz, Avon, and others.



INSURANCE & OVERSEAS MANAGED FUNDS

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Table listing various insurance and managed funds, including company names, fund names, and numerical values.

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OFFSHORE AND OVERSEAS

Table listing offshore and overseas managed funds, including company names, fund names, and numerical values.

NOTES section at the bottom right of the page, providing additional information and disclaimers.

COMMODITIES AND AGRICULTURE

EEC beef regime changes alarm British exporters

By Richard Mooney, Commodities Staff

CHANGES in the EEC beef regime agreed by Community Ministers at a meeting in Brussels...

meat similar to that operating under the lamb regime. Clean beef refers to beef not produced as a by-product...

exporting company. "And we are anxious to complete deals further abroad than that. We need to know where we stand..."

Britain's independent butchers, said the introduction of a clawback should result in more domestic beef being available to British consumers...

is extended to make up producers' lost returns, however, retail prices could be raised by about 3p a lb. "The premium (deficiency payment) is an alternative to intervention," Mr Champion explained...

burden of the deficiency payment will fall on beef producers, who would be expected to cut back production in response. This production cut would tend to raise retail prices in the medium term...

Traditional joints of beef will virtually disappear from high street shops within the next few years, one of Britain's leading butchers warned yesterday. More and more beef will go for processing and mincing...

Quality tea prices suffer technical fall

THE INDICATIVE selling price for quality teas was cut sharply from 255p to 233p a kilo at the London weekly auctions yesterday. However, brokers said the decline was only a technical one...

St. Joe strike pushes lead to two-year high

LEAD PRICES rose to the highest level for two years on the London Metal Exchange yesterday following confirmation of a strike by St. Joe Minerals' workers at the company's five lead mines in Missouri...

Soyabean meal \$ contract to be scrapped

THE London Soyabean Meal Futures Association has decided to scrap the dollar-based contract, introduced last year, and to replace it with existing sterling contracts for lots of 100 tonnes with a new contract for lots of 20 tonnes each...

Congress veto to approve acreage reduction Bill

THE U.S. Congress is expected to give final approval this week to farm legislation which includes a wheat acreage reduction programme and makes a similar scheme likely in 1985 for feed grains...

Speculative buying helps cocoa

COCOA PRICES jumped on the London futures market yesterday following renewed short speculative buying interest. July futures closed £35 up at \$1,863.5 a tonne...

JAPAN's agricultural minister will visit Washington

JAPAN'S agricultural minister will visit Washington today to seek a political solution to beef and citrus trade disputes. He will also discuss the proposed trade agreement...

ZIMBABWE tobacco growers say they have produced a record crop of about 110m kg of good quality leaf

ZIMBABWE tobacco growers say they have produced a record crop of about 110m kg of good quality leaf. The crop is expected to be sold to the Government...

PRICE CHANGES

Table showing price changes for various commodities including Tin, Tungsten, Wolfram, and Zinc.

BRITISH COMMODITY PRICES

Table showing British commodity prices for metals and other goods.

BASE METALS

Table showing base metal prices for items like Aluminum, Copper, Lead, and Tin.

SILVER

Table showing silver prices for different grades and specifications.

POTATOES

Table showing potato prices for various grades and regions.

RUBBER

Table showing rubber prices for different types and origins.

COTTON

Table showing cotton prices for various grades and origins.

LONDON OIL

Table showing London oil prices for different grades of oil.

GAS OIL FUTURES

Table showing gas oil futures prices for different time periods.

COPPER

Table showing copper prices for different grades and origins.

TIN

Table showing tin prices for different grades and origins.

COFFEE

Table showing coffee prices for different grades and origins.

COCOA

Table showing cocoa prices for different grades and origins.

GRAPES

Table showing grape prices for different varieties and origins.

SPOT PRICES

Table showing spot prices for various commodities.

CRUDE OIL FUTURES

Table showing crude oil futures prices for different time periods.

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Table showing tin prices for different grades and origins.

COPPER

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POTATOES

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GOLD MARKETS

Table showing gold market prices for different grades and origins.

EUROPEAN MARKETS

Table showing European market prices for various commodities.

LEAD

Table showing lead prices for different grades and origins.

ZINC

Table showing zinc prices for different grades and origins.

ALUMINIUM

Table showing aluminum prices for different grades and origins.

NICKEL

Table showing nickel prices for different grades and origins.

PIGMENT

Table showing pigment prices for different grades and origins.

WHEAT

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Commodity values continue to rise

By Our Washington Staff. AVERAGE commodity prices continued their prolonged and gradual upward trend in February 1984, rising 14.8 per cent above the previous year and 19 per cent above their trough in November 1982.

Time for Mauritius sugar industry to rationalise

By JOHN MADELY, RECENTLY IN PORT LOUIS. IT IS NOT yet clear how much damage the cyclone which struck Mauritius during Christmas 1983 will have done to this year's sugar crop. The cyclone, which flattened crops in some areas, has also had the effect of the worst drought for 30 years, a drought which caused a steep fall in 1983's output.

TEA AUCTIONS

LONDON TEA AUCTIONS—3,300 casks of tea were offered in three sessions on the London Tea Auctions mat less demand and a sharp rise in the price of the tea. The auctioneers generally firm to dealer. Africans sold mostly with brighter lines gaining 200-400 p.c. over last year's levels. The dealer but plainest sort closed earlier with some withdrawals. Ceylons were firm except for broken which met limited demand. Offshoots have received good support with brighter types also firm.

INDICES

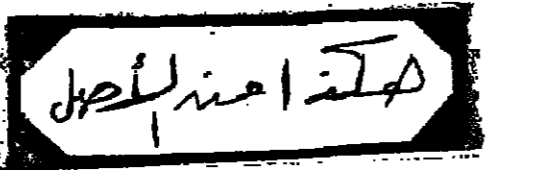
Table showing various financial indices including Dow Jones, Reuters, and Moody's.

SUGAR

The London physical market opened slightly higher, attracted some interest in shorts and closed on a note of uncertainty. The Kuala Lumpur May price rose to 220.00 (223.00) a cask for SMR 22 (233.00).

WHEAT

WHEAT—(U.S. 5c per bushel). U.S. soft red winter April 172, May 172, June 172, July 172, August 172, September 172, October 172, November 172, December 172.





# INTERNATIONAL CAPITAL MARKETS

## Statoil launches \$100m Eurobond

By Mary Ann Sieghart in London

STATOIL, the Norwegian state oil company, launched a \$100m Eurobond yesterday in what was otherwise a very quiet market.

The bond has a four-year life—short by Eurobond standards—and a 12 per cent coupon at par. Deutsche Bank and Merrill Lynch are leading the deal, which is thought to involve a swap into floating rate dollars.

A combination of the short maturity and the name (it is guaranteed by Norway) led to considerable investor demand. The bond started trading at a tiny 1/4 point discount, well inside its 1 per cent selling concession.

In Germany, C. Itoh Fuel, the Japanese oil company, is raising DM 25m through a five-year

BHP Bank bond average

April 2 Previous 98.541 98.566 High 1983-84 Low 100.009 98.056

bond with equity warrants. It has a 3% per cent indicated coupon and is led by Deutsche Bank. Final pricing is expected on April 10.

Ekspordfinans of Norway is raising SwFr 100m through a 10-year bond with an indicated 5% per cent coupon at par; Citicorp Bank (Switzerland) will price it on Thursday.

The State Electricity Commission of Victoria launched a SwFr 100m private placement with the lowest coupon on a straight bond since last May. It pays 5 per cent at par and has a seven-year life.

Credit Suisse is leading managers. The European Economic Community's FI 200m, 8% per cent bond has been priced at 100% by lead manager AEN Bank.

Dollar, D-Mark and Swiss franc secondary markets were all quiet yesterday. Prices closed unchanged on the day.

Prices edged up a little in the dollar secondary market yesterday morning, but this led to a spate of profit-taking by the early afternoon. On the day, prices were unchanged to up 1/4 point.

## East Germany to tap market for \$50m

By Peter Montagnon in London

DEUTSCHE Ausenhandelsbank, East Germany's foreign trade bank, plans to raise a \$50m credit in the Euromarkets, the country's first publicised borrowing from international banks since October 1981.

It has asked First Chicago, the U.S. bank, to sound out the market for a five-year credit with indicated interest margins of 1 per cent over London Eurodollar rates or 3/4 per cent over U.S. prime rate. The exploratory process is expected to last until mid-April, when the loan could go ahead on a club basis.

Though small, this credit marks a further step in the slow rehabilitation of East European borrowers after new credit was virtually halted in the wake of the Polish debt crisis. Last year East Germany raised a DM 1bn credit from German banks, but the operation was guaranteed by West Germany and described at the time as a "political deal."

Now a shortage of loan opportunities worldwide is encouraging banks to rebuild some of their lending to Eastern Europe. Figures from the Bank for International Settlements show that the outstanding debt of East Germany to Western banks fell from a peak of \$18.1bn in December 1981 to only \$7.9bn last September. This has created space in bank balance sheets for more East German loans.

A further sign of the gradual recovery of East Europe's credit rating has come with the acceptance to a \$150m bankers' acceptance facility being arranged by First Chicago for the National Bank of Hungary. This is now oversubscribed and likely to be increased.

## FT INTERNATIONAL BOND SERVICE

The list shows the 200 latest international bond issues for which an adequate secondary market exists. The following are closing prices for April 2.

U.S. DOLLAR	Issued	Rate	Term	Yield	Change
STRAIGHTS					
Abn-Am 11/4 95	100	8 1/4	10	12.58	+0.01
Australia 11/4 95	100	9 3/4	10	12.83	+0.01
Australia 11/4 95	200	9 3/4	10	12.79	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.25	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.22	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.71	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	11.69	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.82	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.85	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.86	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.87	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.88	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.89	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.90	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.91	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.92	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.93	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.94	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.95	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.96	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.97	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.98	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.99	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.00	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.01	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.02	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.03	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.04	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.05	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.06	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.07	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.08	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.09	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.10	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.11	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.12	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.13	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.14	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.15	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.16	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.17	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.18	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.19	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.20	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.21	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.22	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.23	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.24	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.25	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.26	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.27	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.28	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.29	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.30	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.31	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.32	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.33	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.34	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.35	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.36	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.37	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.38	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.39	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.40	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.41	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.42	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.43	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.44	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.45	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.46	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.47	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.48	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.49	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.50	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.51	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.52	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.53	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.54	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.55	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.56	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.57	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.58	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.59	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.60	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.61	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.62	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.63	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.64	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.65	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.66	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.67	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.68	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.69	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.70	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.71	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.72	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.73	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.74	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.75	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.76	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.77	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.78	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.79	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.80	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.81	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.82	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.83	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	13.84	+0.01
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Bank of Tokyo 11/4 95	100	8 1/4	10	12.91	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.92	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.93	+0.01
Bank of Tokyo 11/4 95	100	8 1/4	10	12.94	+0.01
Bank of Tokyo 11/4 95	10				

# Nonwovens

## THE TEXTILE INDUSTRY'S BIG GROWTH AREA

### The future looks assured

IT IS highly appropriate that the nonwovens industry, which opens its congress and exhibition today, should have chosen Geneva for its venue. The Swiss city is both affluent and internationally minded, attributes possessed by the industry itself.

As much as any other industry, European nonwovens is international. It exists, and has grown, and can only continue to exist because it trades across national borders, far more so than the American industry whose parameters largely end at U.S. borders, or the Japanese one.

It is affluent because it has grown at a faster pace than most other European industries over the past two decades, and certainly much more rapidly than sectors with which it is associated such as textiles and plastics.

In 1970, production in Western Europe amounted to a mere 40,400 tonnes; a decade later the figure had reached 190,000 tonnes and in 1982, the last year for which figures were available, it was estimated to have reached 210,000 tonnes.

In the early years there was an exceedingly rapid rate of growth, averaging 26 per cent a year. This subsequently tailed off, and between 1975 and 1979 the rate was around 14 per cent, with an average nearer 10 per cent in recent years.

This rapid rate of growth was to a large extent due, of course, to the low base point. But, even allowing for this, progress has been little short of startling, especially given the troubles associated with allied industries in this period such as textiles, chemicals, paper and plastics.

The growth has not been completely even. There was a hiccup in late 1974 and 1975 following the oil price rises after the six-day war between

By ANTHONY MORETON

Israel and Egypt in the autumn of 1973 and another one in 1981 following oil price rises in 1979. These interruptions have done little to stem what has seemed like an inevitable growth rise.

The future, too, looks as assured as anything can be. A further rise in production of around 10 per cent is expected this year, according to M Guy Massemaux, secretary general of EDANA, the Brussels-based European Disposables and Nonwovens Association, with another 10 per cent likely in 1985.

It is hardly surprising, given this strength, that the industry is increasingly seeking to be considered as its own merit rather than as an adjunct of something else. For years it was considered part of other industries — hardly surprising given its close links with textiles, paper and plastics. There is now a growing awareness,

however, that nonwovens is an industry in its own right, producing products which are in direct competition with those of these older-established industries.

This is perhaps nowhere more evident than in the field of medical and hospital requisites. A doctor's gown, a bed sheet or a dressing may be made by a conventional woven method or it may be produced along a nonwoven path.

The two are not necessarily the same. The nonwoven product has to be seen, and commercially judged, on its attributes as a disposable product; the woven textile product has to be seen within a recyclable life. It may cost less, initially, than a nonwoven garment that appears similar, but its cost structure is very different.

The initially dearer nonwoven surgeon's gown has a very different cost comparison when the woven equivalent is laundered and repaired over its whole life. It is possible then that the initially "dearer" nonwoven may be cheaper in the long run.

It is around such factors that much of the discussion by buying authorities is now going on. Do they go for initial cheapness (woven) or long-term cheapness (nonwoven)?

Another problem the producers of nonwovens have is that of identification. The vast variety of products made from nonwovens, and the large spread of industries covered surprise even those within the industry.

Nonwovens are to be found in items as disparate as tea bags, surgical dressings, ropes, coat linings, sheets, bandages, support for river banks and harbour walls, coffee bags, nappies, and underpinnings for airport runways. Other applications for nonwovens are for washing-up cloths, scouring pads, carpet underlays, sanitary protectives, overalls, protective clothing, cable protection, face masks, gauze, leather substitutes, filtra-

tion equipment, roofing strip, car upholstery and tyre and engine components, and carpet underlays.

The development of nonwoven production is reflected not just by the number of products but also by the number of plants producing them. Between 1970 and 1981 the number in Europe doubled from 39 to 81, with part of the increase being accounted for by new entrants.

#### Main producer

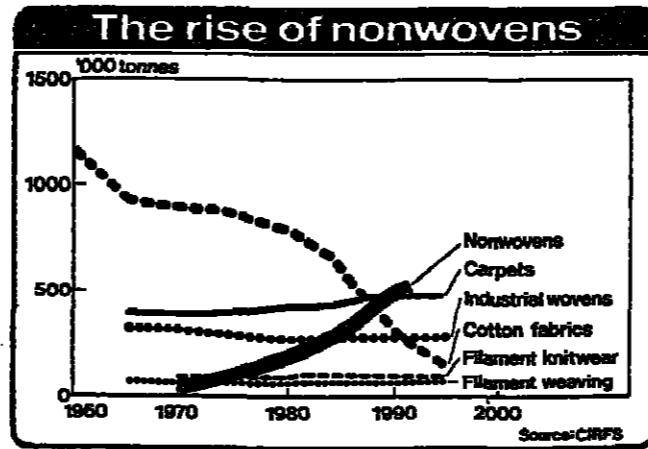
The most important producer has always been Germany, but there is a wide range of production facilities. In 1970 German output was just over a third (36.4 per cent) of the European total though by 1982, as a result of strong investment in other countries this had dropped back to a quarter.

The fastest growth was recorded by the Benelux countries which in 1970 were relatively insignificant producers but which by 1982 had risen to second place. At one point, in 1981, they almost edged Germany out of top spot. British output has become stagnant, though Scandinavia, in particular, and France, to a lesser extent, have grown steadily.

As output has grown so, too, have end uses changed. Originally, interlinings for clothes were the most important outlet, accounting for about a quarter of production.

Coverstock is now by far the most important use, with civil engineering and building rising very strongly. Other important sectors are upholstery and carpet underlays (the two are not separated statistically), coating substrates, abrasives and tea bags, and wiping cloths.

Coverstock is the trade term for nappies, adult incontinence pads and feminine hygiene products. Nonwovens have never become as important in coverstock in Europe as they have in the U.S., where Procter and



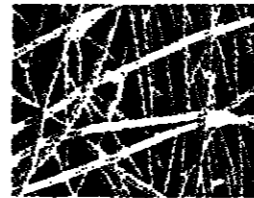
Source: CTRFS

Source: EDANA

#### NONWOVENS: A DEFINITION

THE difference between a nonwoven fabric and a woven fabric may be summarised as follows:

- In a woven fabric, the fibres are aligned in two directions, perpendicular to each other.
- In a nonwoven fabric, the filaments or fibres are entangled multi-directionally.
- The methods of manufacturing nonwovens eliminate traditional textile processes, such as spinning, weaving or knitting. Instead, these fibrous products are produced by



dry laid, wet laid, spun bond and fibrillated web systems, described in more detail on page 11 of this survey. Shown here is a microscopic view of a thermally-bonded nonwoven fabric.

Gamble is considered to be the market leader, but there have still been enormous increases in recent years.

These increases have arisen from the installation of new plant; indeed, new plant has led to some fears that in this sector signs of overcapacity could be emerging. The overcapacity is not so much due, however, to excess plant as to technical changes. These are taking place with such rapidity that much plant is quickly obsolete.

Further strong growth in the coverstock market in Europe is expected though disposables penetration in this market may never reach U.S. levels. Growth will also come from the supply of products to deal with

the problem of adult incontinence. There are 30m people in the EEC over the age of 65 and it has been estimated that as many as one in five has an incontinence problem.

#### Strong area

Medical outlets for nonwovens have also been increasing steadily, and here the battle centres on inducing the client to move to disposables. Face masks, caps and shoe covers have largely become disposable but there has not been the same success in winning a share of the market for overalls and bed linen. Both bed and table linen, which at one time were expected to emerge as an expanding sector, have proved to be disappointing.

#### INDEX '84 STARTS TODAY

VISITORS and exhibitors from the U.S., Japan, South America, the Middle East, Eastern and Western Europe will be participating in INDEX '84, the congress and exhibition for the nonwovens industry.

The event, held every three years, opens today at Palexpo, Geneva, with close to 180 international exhibitors—a substantial increase on the previous show. More than 80 speakers are taking part in the congress in which various seminars will review production and marketing developments within sectors of the industry. The congress, which runs from today until Thursday, features sessions in English, French and German.

#### IN THIS SURVEY

- The major producers: a growing trend towards spunbonded products II
- Manufacturing methods: new techniques eliminate traditional textile processes II
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- Nonwovens in industry: new products replace traditional materials IV
- Profile: Freudenberg expands operations in U.S. and Japan V
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- Geotextiles: the fastest-growing sector in the industry VI
- Research leads to new applications VI

Interlinings have always been a strong area for nonwovens because of their excellent quality as drapes. But nonwovens have made little headway into clothes production.

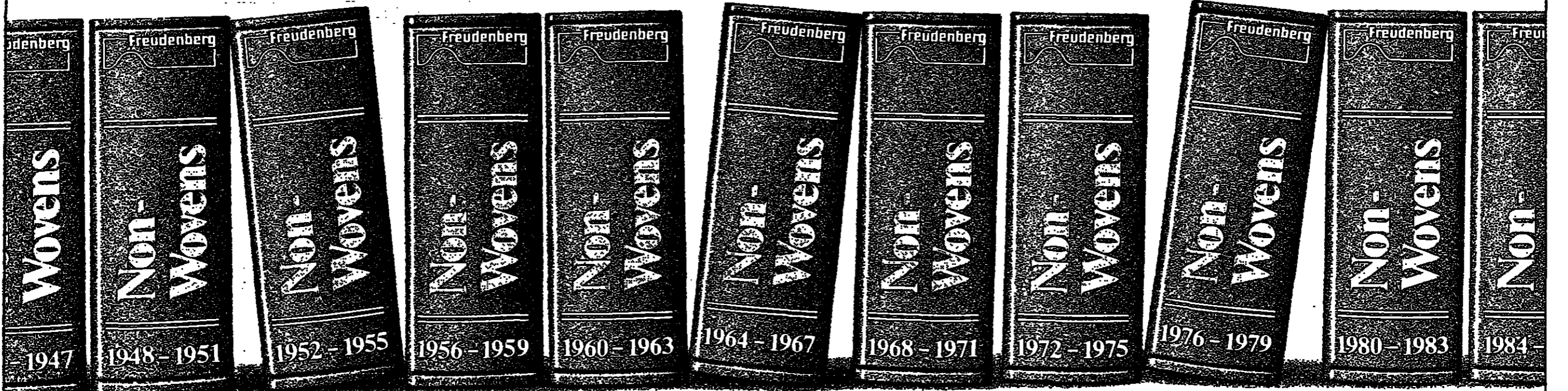
The fastest growing side now is undoubtedly in civil engineering and building where expansion has been very rapid since 1977. This end-use originated in Europe with several of the big producers and the main development still remaining on this side of the Atlantic.

The characteristics which have helped nonwovens to succeed in this area include price, strong tear resistance, tensile strength to match the stress involved, and high

resistance to rotting and ageing. Above-average growth is expected to continue, too, because export markets have opened up handsomely.

The European industry is now looking forward to a growth of at least 8 per cent a year, which might be a conservative estimate.

A switch in consumption of basic raw materials away from cellulosic fibres, which characterised the early days, towards polyester and polypropylene, in particular, has also characterised the industry. It illustrates the degree of change which has taken place in, and continues to take place in, what is now established as a very fast-moving industry.



## Who Is Writing The History Of Nonwovens?

The first chapters were written by Freudenberg. In 1948 we entered the market with the first nonwoven products. Already since 1951 we produce in the USA, and since 1960 in Japan. We developed the spunbond technology and were the first to commercialise the thermobonding technique. Freudenberg employs the broadest spectrum of

manufacturing technology for worldwide application and use. The variety of our product range reaches from long-lasting durable nonwovens to disposable products; from very light to extremely heavy material. From continuous mass-production to individually tailored problem solvers. We develop for our customers with our

customers. We are at home in the fields of fashion, engineering and construction, hygiene, medicine and in household cleaning. The brands Viledon, Vileda, Vlieseline, Vlene, Fliselina, Pellon, Lutravil stand for the experience of the most diversified and international manufacturer of nonwovens in the world. With fifteen manufacturing facilities in nine countries.

Freudenberg is the largest "textile corporation" in Germany and the largest manufacturer of nonwoven materials in Europe. Worldwide sales exceeded one billion Deutschmarks for the first time in 1983. Our commitment to writing the nonwovens history for the benefit of our customers and the industry in general continues.

NONWOVENS II

Plenty of innovation among the industry's major producers  
A growing trend towards spunbonded products

THE CINDERELLA image which has masked the development of the nonwovens industry for more than 20 years is now evaporating, revealing the involvement of some of the world's largest fibre and textile organisations.

At the same time, innovative methods for making nonwovens are tending to push the actual manufacturing stage further upstream closer to fibre extrusion. This is placing some companies in the potentially embarrassing situation of being both suppliers to the nonwovens industry and nonwovens manufacturers themselves. Such companies have so far managed to handle the problem delicately and successfully.

In Europe, coated materials for automotive interiors and has also developed markets for its Covavin polypropylene and polyester spunbonded nonwovens in a number of other product areas.

Main areas

Among the most important are coverstock (for diaper and similar products) quilting for the bed and mattress industries, in protective clothing, filtration and agricultural applications.

The company, which has a turnover of £20m altogether and 650 employees spread across all its activities, believes spunbonded will continue to replace other textile materials on the basis of their better price/efficiency ratio.

The company's own estimates put the production of nonwovens in Europe currently at 250,000 tonnes, with spunbonded accounting for 90,000 (divided into 70,000 tonnes over 150 gm per sq metre and 20,000 tonnes under 150 gm per sq m). Whereas spunbonded is in general expected to grow at 12 per cent a year until 1990, Benecke expects the growth rate to be nearly 30 per cent a year until 1990, reflecting their growing penetration into areas such as coverstock.

Another U.S. licensee, Crown Zellerbach Corporation, was a major papermaking operation before adding spunbonding to its activities. This latter company has recently licensed a Swedish company to build a spunbonding plant employing what has developed into the Crown Zellerbach system.

The Swedish company, Halmens Brak, is acknowledged to be one of the largest European manufacturers of nonwovens. It is to invest £12.6m in the spunbonding project, which is scheduled to come on stream early next year.

As a manufacturing technique, spunbonding appears to attract papermaking organisations, perhaps because of its potential for fast and large scale output of fairly standard qualities. Sodoca, another Lurgi licensee, was originally set up in France by the Swiss-based Holzstoff group.

Although Sodoca first made strong marketing efforts in the geotextile markets, more recently the company has diversified into making spunbonded for use as carriers in simulated

leathers, for various bedding and mattresses, agricultural protective clothing and special industrial applications.

Du Pont's production of three different generic types of spunbonded, plus spunlaced materials (the latter consist of a fibre web held together entirely by inter-fibre friction, the fibres having been arranged to produce this friction—and to create a variety of inherent pattern effects—by a highly sophisticated water-jet technique) makes the company the biggest nonwovens manufacturer in the world in volume terms.

Most spunbonded manufacturers concentrate on making only one generic type, usually polypropylene or polyester.

Another outstanding exception, however, is Lutravil Spinnverles West Germany, which makes both these two and others based on nylon.

**Diverse group**  
Lutravil is the spunbonding subsidiary of Carl Freudenberg group, arguably the most diverse and cosmopolitan nonwovens organisation in the world. Freudenberg has extensive manufacturing facilities through fully-owned, majority-owned and minority-held operations in Western Europe, North America and the Far East. The organisation is involved in manufacturing virtually every type of nonwoven.

In the UK, Bondina—one of the largest domestic nonwovens manufacturers (making more nonwovens for applications as varied as apparel interlinings, battery separators, medical items, filtration and electrical insulation)—is a Freudenberg subsidiary.

Total turnover in 1983 of the still privately-owned Carl Freudenberg company was £194.8m. This figure takes into account all fully-owned operations, and those in which the company has a share of more than 50 per cent; so it can be added a further £100m from other operations in which Freudenberg has a minority interest.

Another major UK nonwovens manufacturer is Bonded Fibre Fabric. This company, like most of the range of construction, equally varied as that of Bondina. BFF is an associate of Courtauld's Group but represents only one nonwovens manufacturing customer for the fibre producer's viscose items.

By DEREK WARD

of 11,400 tonnes, is also represented in roofing carpet underlay, the car and footwear industries.

In footwear, its Bidim nonwovens brand is sold to manufacturers who process the material, generally by impregnating it, before resoling it in a form which can be used by footwear manufacturers. The material has begun to replace teased cotton fabrics and other cellulosics in topuffs and stiffeners and in insoles.

Geotextiles markets in particular demand comparatively large quantities of fairly standard fabrics—a demand suited to the large output but limited versatility of most spunbonding systems.

Since the start of this decade, spunbonded have increased their share of total Western European nonwovens output from 5 per cent to over 30 per cent.

Spunbonding as a technique for making nonwovens has not been entirely confined to fibre producers. The Lurgi group in West Germany developed a simple, yet still capital intensive method, the Doman process, and has granted seven licences over the past decade.

Some licensees, such as Kimberly-Clark, in the U.S., were already involved in the more conventional nonwovens sector. Others were entering the nonwovens sector for the first time. J. H. Benecke, West Germany, for example, was possibly the first licensee.

The company—founded over 260 years ago by the Benecke family which still controls it—claims to be the biggest supplier

Big effort

Du Pont has made strenuous efforts to steer clear of markets serviced by its fibre customers. Typar, the group's main spunbonded in volume terms (and the only one made in Luxembourg) has been closely associated with the tufted carpet backing fabric market and more recently with geotextiles.

Most other European fibre producers, when they entered the spunbonding business, first attempted to emulate Du Pont's success in the carpet backing field before moving into other markets where they wouldn't compete directly with fibre customers.

ICI Fibres, with Terram milled filament fabrics, now dominates major areas of geotextile sectors in several parts of the world.

Hoechst is a prominent supplier of spunbonded roofing materials in both Europe and North America, and Rhône-Poulenc—the only spunbonded manufacturer to have its fabric made in three continents—has also concentrated on geotextiles.

The French group, which had a nonwovens turnover of FF 216m last year, and is forecasting total output this year

PRODUCTION PROCESSES

Process	1970		1975		1978		1981	
	tonnes	%	tonnes	%	tonnes	%	tonnes	%
Drylaid	32,500	63	61,300	63	84,100	53.3	105,200	55.1
Wetlaid	4,900	12	14,900	15.3	24,400	16.0	28,900	14.7
Spunlaid	2,000	5	21,100	21.7	43,600	28.7	57,800	30.2
Total	40,400	100	97,300	100	152,100	100	191,900	100

Source: EDANA

EUROPEAN PRODUCTION (tonnes)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983 est.
	63,300	84,000	100,700	97,300	114,700	132,600	152,100	176,100	185,600	191,000	210,000	230,000

Source: EDANA

Production techniques eliminate traditional textile processes  
New manufacturing methods

NONWOVENS are characterised by the presence of a fibrous structure, consolidated into materials of the required strength and other properties. Their methods of manufacture eliminate traditional textile processes, such as spinning and weaving or knitting.

The fibrous element of these products provides the general classification of nonwovens and their methods of production into dry laid, wet laid, spun bond and fibrillated web systems.

**WEB FORMATION**  
• Dry laid, in which fibres are arranged into directionally oriented or randomised webs or combinations of both, by carding or related processes.

• Wet laid, in which the fibrous element of wet laid nonwovens is produced by dispersion of the fibres in water and deposited as a web.

• Spun bond, in which fibre-forming polymers are extruded through spinnerettes and the continuous filaments formed arranged as a fibrous web.

• Fibrillated nonwovens, in which extruded thermoplastic polymer films is biaxially stretched, causing fibrillation and the formation of a web-like structure.

The bulk of both dry-laid and wet-laid production is in the lower weight range, such as wipes and coverstock, while spun-laid fabrics are concentrated in higher weight categories, most notably geotextiles. This is, however, changing and figures for spun-laid fabrics below 25 gm/sq. m. indicate a growing penetration of spun-

laid nonwovens in the coverstock sector.

**BONDING**  
Many methods are employed to bond the webs formed into products of the required physical properties. These bonding processes may include the use of adhesives, solvents, heat, fibre entanglement, compression or combinations of all of them.

• Adhesive and solvent bonds: Webs may be bonded by adhesives or fibre solvents. The application may be by total saturation or in discrete areas or by spraying, providing products of a wide range of weights, density, loft, strength and softness.

• Thermal bonding: Webs containing thermoplastic fibres may be bonded by heat to produce voluminous products. Use of heat and pressure applied overall, or in discrete areas, provides more compact materials of varying degrees of firmness.

• Mechanical bonding: Webs may be consolidated by mechanical entanglement of their fibrous component by needle punching, stitching without thread and other methods.

**FINISHING & CONVERSION**  
Nonwovens may be converted by finishing processes for aesthetic or utilitarian purposes. Such processes include decorative printing, treatments to improve chemical and physical properties, flame retardance, absorption and water repellence. Nonwovens may be coated or laminated to other

products for a variety of end uses.

**Bright idea**  
According to Mr. Ken Floyd, of the Shirley Institute in Manchester, nonwoven techniques got off to an unwise start through the use of cheap processes associated with adhesive bonding.

This was developed in the U.S. during the 1940s to use waste cotton fibre which was too short in staple length to enable it to be spun into yarn by conventional means.

"Someone had the bright idea that it should be possible to stick these fibres together to form some sort of fabric."

"Unfortunately, the only adhesives which were considered suitable for such a low-grade product were water soluble. Consequently, these first examples of adhesive-bonded fabrics, although passable when dry, literally fell apart when wet."

"It was not surprising, therefore, that the whole family of nonwoven fabrics came to be regarded by industry and the general public as a cheap, wartime substitute."

"Since then, according to Mr. Floyd, it has been possible to see three phases—the produc-

tion of cheap, usually inferior substitutes, selling mainly on their low cost, few of which remain today; the production of more sophisticated products capable of selling on their own merits in direct competition with traditional products; and the production of engineered structures designed to meet specific requirements which cannot be made in any other way, such as filter materials for air-conditioning plants.

The process of producing nonwoven products began with needle punching, originally, according to Mr. Floyd, called needle felting. Reciprocating barbed needles are used to produce mechanical interlocking of fibres in a fleece to provide sufficient cohesion.

This was followed by adhesive bonding and then by stitch bonding, a process developed almost concurrently in Czechoslovakia and East Germany during the late 1950s. Under it, a fibrous fleece is consolidated by knitting through the fleece, using a modified form of warp-knit machine.

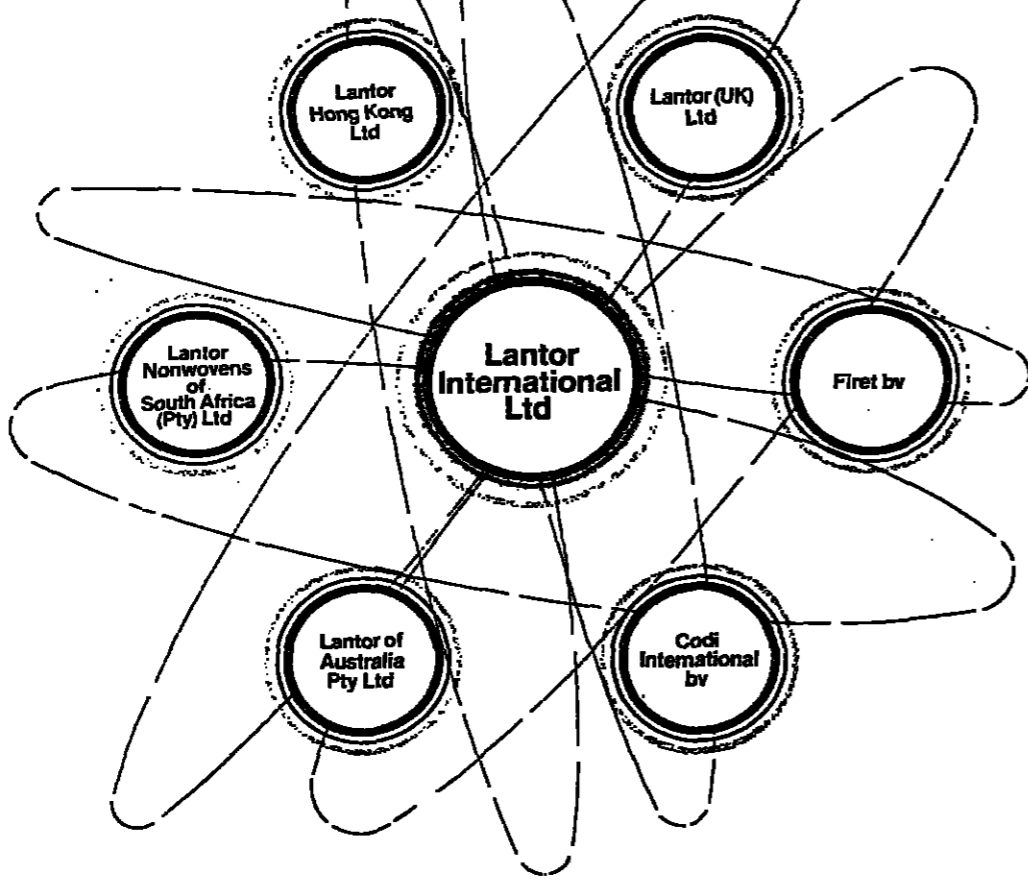
The next commercial step forward was spun bonding, by which polymer chips are fed into one end of a production line and a fabric emerges, and then spun-laid nonwovens came along and then spun-laced fabrics developed by Du Pont.

By this latter process high-velocity fluid jets are used to produce both apertures and mechanical interlocking of the fibres, which combine to give soft fabrics with good hanging qualities.

Anthony Moreton

LANTOR

Leaders in Nonwovens

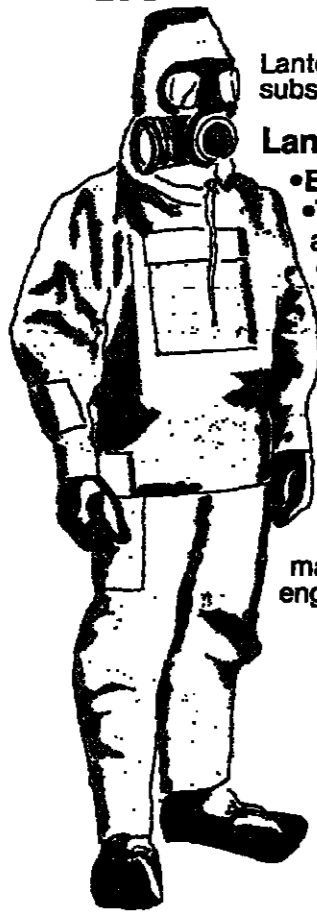


Lantor International Limited - Manufacturers of Nonwovens for a Universe of Applications

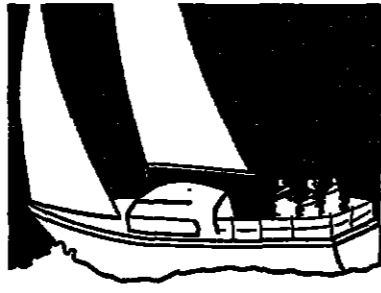
Formed in 1957 by Tootal Group plc and West Point Pepperell Inc. (USA) Lantor have become international leaders in nonwovens with overseas subsidiaries and licensees.

Lantor's success in nonwovens is built on

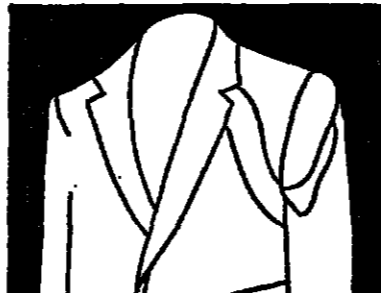
- **EXPERTISE**—Acquired through heavy R & D investments.
- **TECHNOLOGY**—A broad spectrum of product type and advanced manufacturing technology.
- **MARKETING**—Active participation in growth markets such as hospital and surgical, military, consumer and a wide variety of industrial outlets.
- **QUALITY**—The Ministry of Defence has authorised Lantor to carry out its own inspection to Ministry Standards. The required high level of quality is followed through to all commercial products.



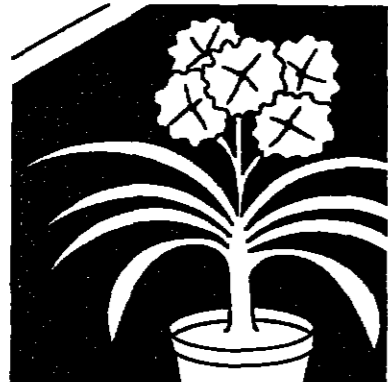
NBC Suit incorporating Lantor's anti-gas fabric. (Nuclear, Biological, Chemical)



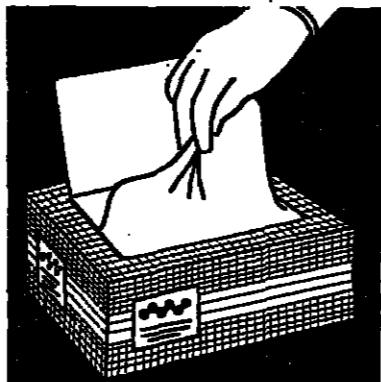
First Coremat®, the nonwoven core material in polyester constructions for yachts, buildings and vehicles.



Jacket cut away to show Lantor/Firet interlining fabric.



Capillary matting made from Lantor's fabric designed for high water retention.



Hospital wipes manufactured cut and packed by Lantor from Lantor's cotton fabric.



Firet® tapes for low, medium high voltage cables, optical and flexible cables.

Lantor's international staff will welcome anyone who would like to know more about nonwovens. Information and documentation are available on request from the following addresses:

**Lantor International Ltd**  
St. Helens Road, Bolton, Lancs. BL3 3PR. Tel: 0204 61426  
Telex: 635160 Managing Director J. Bourne

**Lantor (UK) Ltd**  
St. Helens Road, Bolton, Lancs. BL3 3PR. Tel: 0204 61426  
Telex: 635160 Managing Director E. Wilson

**Firet bv**  
Postbus 45, 3900AA Veenendaal Holland  
Tel: 06385-19148 Telex: 37119 or at Stand 1181 INDEK 84  
Managing Director P. de Fouw

**Codi International bv**  
Turbinestraat 19, P.O. Box 417, 3800 AK Veenendaal, Holland  
Tel: 06385-13251 Telex: 37111 or at Stand 1183 INDEK 84  
Managing Director G. van Manen

**Lantor of Australia Pty Ltd**  
P.O. Box 79, Tullamarine, Victoria 3043. Tel: 3388911  
Telex: 368109 Managing Director G. Fair

**Lantor Nonwovens of South Africa (Pty) Ltd**  
P.O. Box 461, Pinetown 3600. Tel: 31-714411 Telex: 6-25234  
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LANTOR

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Tel: 0204 61426 Telex: 635160

## NONWOVENS III

### U.S. PRODUCTION GROWTH OUTPACES EUROPE

U.S. PRODUCTION of non-wovens has been growing at an even faster pace than in Europe. Department of Commerce statistics show the manufacturers' shipments rose by some 41 per cent between 1978 and 1982 to reach \$2.4bn.

By comparison, it has been estimated that Western European output, with the exception of Spain and Portugal, was \$750m in 1982, the last year for which figures are available.

The U.S. is largely self-sufficient in its needs. There is a relatively small export trade, at \$146m but exports account for an even smaller \$61m, less than 3 per cent of consumption.

There are probably more than 200 companies producing

non-wovens against some 35 in Europe and these are concentrated in four main areas, California, New York, North Carolina and Pennsylvania.

It has been estimated that employment is now running at about 29,000, a rise of around 16 per cent since 1976. A report prepared for the U.S. International Trade Commission suggests that much of the increase has been in bonded fabric production.

These are usually produced in large plants with a minimum of 100 workers whereas most webs, waddings and battings are turned out by plants which employ 20 or fewer workers. The report indicates that bonded fabric output is dominated by fewer than 25 concerns.

U.S. output has been stimu-

lated by the cheap energy policies pursued by successive administrations and this has given the industry an enormous edge over its European and Japanese competitors whose rate of growth has been affected by oil price rises in the 1970s.

There was a slight blip in 1980, when shipments went up by just \$66m, but the strong growth was quickly resumed and in 1981 it rose by \$266m and another \$166m in 1982.

Exports, as the table shows, experienced a very severe hiccup in 1982, dropping back 14 per cent. It is felt in Washington that increasing prices and weaker markets overseas were responsible for the drop. The most important markets were Japan, Canada, Belgium, the UK and West Germany.

Imports have been relatively stable over the years 1978-82 with indications that the U.S. has been substituting home production at the cheaper end of the scale for overseas goods.

There are indications, though, that the U.S. is taking increasing amounts of the higher-value non-wovens, especially from Japan, Taiwan and Holland. These were going in particular to hospital and other medical uses, where disposables appeared to be making ground as the expense of other products.

Japan's links with the U.S. appear to be strengthening and it is felt there could be a further rise in trade between the two countries.

Anthony Moreton

### New markets open up for European producers

## Optimism among fibre groups

Nonwovens are by far the biggest story in textiles today, both in Europe and the U.S., and for that reason are attracting very considerable interest from the world's big fibre producers.

By the early 1990s the sector, which only 15 years ago accounted for less than 50,000 tonnes of fibre a year in Europe, will have climbed to more than 500,000 tonnes, overtaking the carpet industry, industrial wovens, cotton fabrics, filament knitwear, and weaving as a fibre customer.

Accordingly, all of Europe's big fibre groups—Hoechst, ICI Fibres, Courtaulds, Rhone-Poulenc, Montedison—as well as other smaller producers, and American-owned suppliers such as Du Pont, are trying to develop and market high performance, premium-priced, products aimed at the sector.

The potential for the product is literally enormous and it is taking the fibre producers and their customers into areas—such as medical textiles, and geotextiles—which are far removed from the import-dominated apparel area, and, at this stage, too specialist to attract significant developing country interest.

Nonwovens are developing completely new markets for textile type products—geotextiles again—and winning markets from established products—substrates for industrial coating, for example—because they represent the closest approach yet to the fibre makers' dream—a more or less direct route from fibre to fabric with a minimum of intermediary processing.

### Machinery

Heavy cost in textile production is incurred at the point where machinery weaves or knits yarns into fabric, and this is the reason why production has shifted to developing countries. In nonwoven manufacturing—whatever of three main processes is used—fibre is, generally speaking, merely tangled together to form a mat which is then turned into a fabric, either by the addition of acrylic, styrene butadiene or other binders, or by thermosetting.

The machinery for doing this is becoming increasingly sophisticated, and the numbers employed to operate it can be minimal. Moreover, the process can be very fast, making it possible to produce in comparatively short times, hundreds of yards of material for use, for example, as a stabiliser on lengthy road projects.

Perhaps surprisingly, given the industry's apparent dynamism, it is good, old-fashioned viscose (rayon) which remains the most widely used non-woven fibre, accounting for around one-third of European

By RHYS DAVID

consumption in 1981 and somewhat less in 1982.

Rayon's share is the result of the dominant position it built up in a number of fast-growing markets such as disposable diapers and other personal hygiene products, and in wipes, but in the first of these categories it has found itself under increasing attack over recent years from its old enemy, polyester.

While rayon consumption has grown from only 47,600 tonnes in 1975 (when it represented 55 per cent of total fibre consumption) to 57,100 tonnes in 1981 (falling back to 55,600 in 1982), polyester has forged ahead from 14,700 tonnes in 1975 to 45,300 tonnes in 1981.

The principal reason for this is the inroads polyester has been able to make in the coverstock market—the technical term for the outer covering of disposable diapers and similar products. The market leader, Procter and Gamble, switched into polyester in the U.S. in the late 1970s with the result that viscose lost its dominant share of a 50,000 tonnes per year market, and now holds only an estimated 10-15 per cent.

In Europe, where the market is about the same size, the transition has not been so complete, but viscose is still down to only a half share.

It is a market where the ultimate customer—the baby—has only limited means of expressing his preferences, but the rayon men are, nevertheless,

less, not dependent, and believe the pendulum will one day swing back their way.

"Polyester coverstock is being sold on the basis of its stay-dry qualities. Everyone focuses on the properties of the diaper after the baby has wet it. It is just as important to think about the period before, when rayon next to the skin is likely to be much more soft and comfortable," one of the rayon producers points out.

While rayon may have to wait for its turn to come back again, it does have other strong new markets developing, which in the view of Courtaulds, one of the world's big producers of the product, will result in total tonnage used remaining stable, even if overall market share declines as overall nonwoven output grows.

### U.S. market

In the U.S. there is a market estimated at between 5,000-10,000 tonnes a year in tumble drier fabric softeners such as P and G's Bounce. These are nonwovens impregnated with softener which are put in with washing into tumble driers. An allied product, a whitening agent again carried on a non-woven, which is placed with washing into the machine is also being launched in the U.S. In both cases the nonwoven is rayon.

Another application for rayon with enormous potential could hardly be more different—floppy disk wipes. If even minute particles are carried on to the disk by the head, information can be dislodged, affecting performance. As a result in the U.S. the disk now incorporate 80/20 rayon/polypropylene nonwoven twines which sweep the disk to ensure any debris is swiftly removed.

In wipes generally, for hygiene or domestic use, rayon and paper are the main material used, depending on the strength required and are unlikely to be challenged by the man-made fibres which lack absorbent properties. Other outlets for rayon nonwovens in-

clude curtains and mattress tickings.

For the synthetic fibres such as polyester and polypropylene, and to a lesser extent polyamide (nylon) the market starts at the lighter end where the competition is with viscose and extends up to the very heaviest applications in geotextiles—until recently easily the most important nonwovens outlet for synthetics.

The synthetics, however, have been conducting their own internal battle as well as seeking to drive rayon out of coverstock, and this internal feud is now beginning to reach its climax.

The first synthetic nonwovens to enter the coverstock market were resin-bonded polyesters, but these are themselves under challenge from thermoset polypropylene or polyester fibres. To a large extent this reflects the decision by Procter & Gamble: to move to thermoset nonwovens, a move that has made its competitors rethink their own fibres.

The advantages of the thermal bonding process is that the product, because it eliminates binders, is simpler and more economical to produce, and more energy efficient. Fabric produced by this route can also be softer and yet possess better strength and abrasion resistance. ICI is confident that 40 per cent of coverstock will within the next few years be manufactured from dry-laid, thermal-bonded, fibre, and that this route will also make substantial gains in other nonwoven areas. Others believe products using binders will maintain a significant share of the market.

What is less clear at present is the share which the two competing fibres, polypropylene and polyester, will carve out for themselves. Polypropylene has been given a flying start by the decision of Procter & Gamble to stipulate it, and its main suppliers have been gearing up to produce nonwovens in the material. Its main advantage is its superior hydrophobic properties—in the trade known as its "strike-through" and "re-

wet". Most of Europe's big fibre groups, including Hoechst, Enka and Rhone-Poulenc, have responded with specially engineered, partially oriented polyester binder fibres which soften to form a web under heat, but there remain some technical problems to be solved. In the U.S. similar specialist polyesters have been developed by Du Pont, Eastman Kodak, and Celanese.

ICI is going a different route (as too are the Japanese groups Chisso and Unitika). It is offering heterodid polyester fibres combining a sheath and core which it claims have a number of definite advantages. Principally, there is a softening differential of 40 deg. Cent. between sheath and core which means that the bonding process can take place without affecting the strength of the core.

### Qualities

The product, because of its special properties, is more expensive than the rival thermoplastics and is not quite as hydrophobic as polypropylene. It has the advantage, however, of being able to produce a particularly soft non woven, and will be marketed by ICI as a premium product. The UK Group will be presenting its range at INDEX 84 this week.

Other heterodids produced by ICI are already widely used in nonwovens for filtration, and in interlinings and shoo linings. In these last two applications polyamide rather than polyester is the main fibre in use. ICI also sees strong growth possibilities for thermally bonded polyester heterodid fabrics in hospital products where polyester has the edge over polypropylene because of its superior ability to withstand sterilisation treatment.

The main area still untouched by nonwovens except for certain specialised products is durable apparel, but the big synthetic fibre groups have that in their sights, as a long term goal too.

For the present they are happy enough to have found, after 10 years of retrenchment, an area of growth so that the process of developing new products for expanding markets can start again.

Michael Wiltshire

# Index 84

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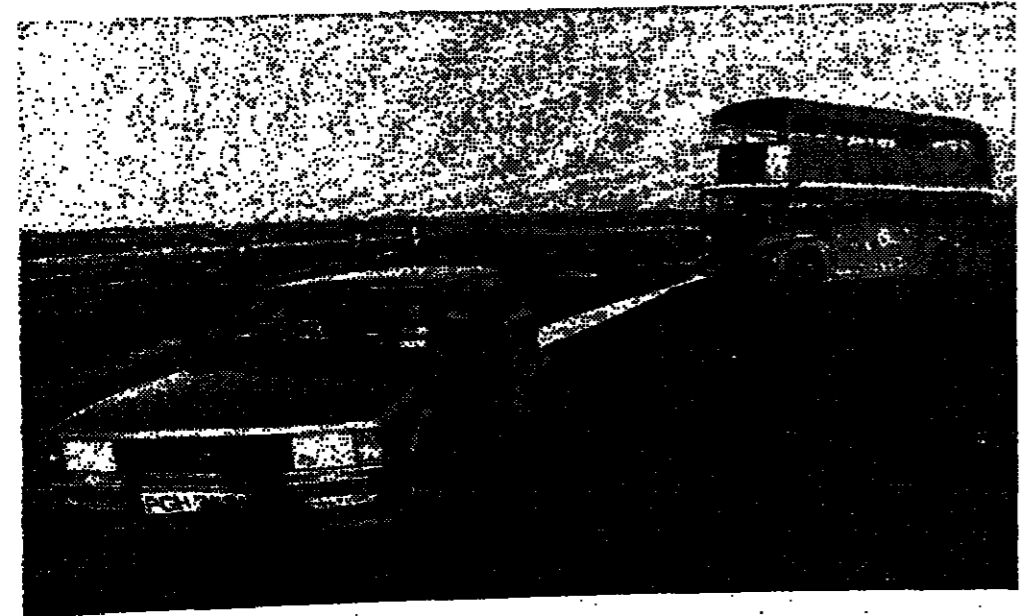
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### NONWOVEN INDUSTRY—FIBRE CONSUMPTION

	1975		1978		1981		
	tons	%	tons	%	tons	%	
Rayon	47,600	55	53,500	57,100	57,100	53.1	
Polyester	14,700	17	27,500	45,300	45,300	26.2	
Polypropylene			18,200	21	9,400	11,700	6.8
Polyamide			4,200		5,000	2.9	
Others m. m. fibres			6,100	7	14,300	17,500	10.1
Natural fibres					700	1,900	1.1
Others							
<b>TOTAL</b>	<b>86,600</b>	<b>100</b>	<b>136,600</b>	<b>172,600</b>	<b>172,600</b>	<b>100</b>	

Source: EDANA



### Strong enough to pull a bus

Manufacturers of strong envelopes made of nonwovens are fond of using dramatic demonstrations to highlight the tear-resistance and tensile strength of the materials used in their products.

For example, Emerson Envelopes of London demonstrated these remarkable qualities by pulling a double-deck bus, using only a 30 ft strip of Tyvek spunbonded olefin, manufactured by Du Pont.

"Even rain didn't impede the experiment," explained Mr Martin Young, an Emerson manager, "because the physical properties of the

spun-bonded strip of very fine polyethylene fibres are practically unaffected by water, which is easily shed from the surface of the envelope.

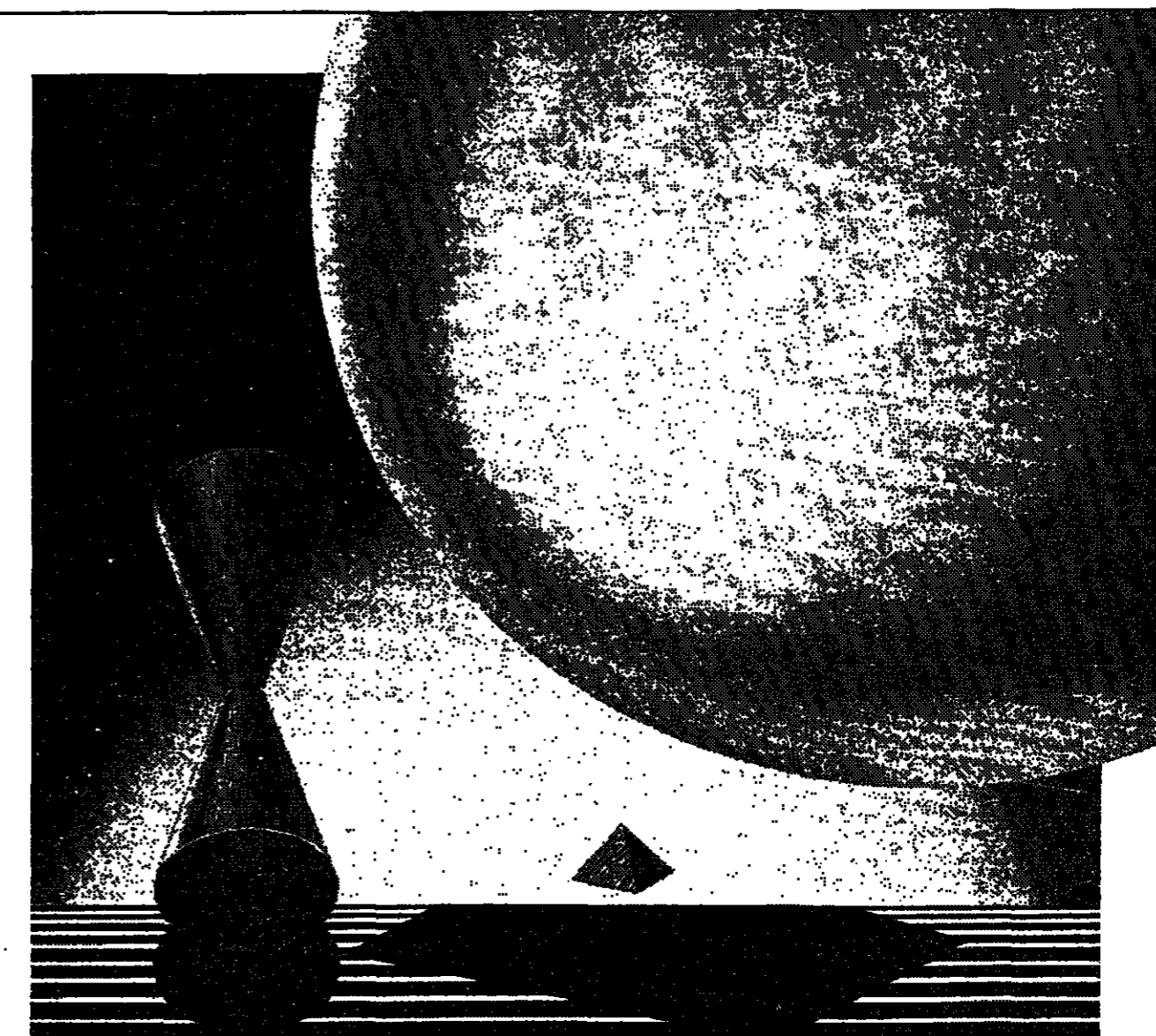
### Contrast

In a demonstration for another company, a West German salesman found a novel way of impressing potential buyers of nonwoven envelopes.

He took clients to the second floor of his hotel and put a telephone inside a conventional padded paper envelope, and another telephone inside a padded non-woven

envelope. Then he threw both packages out of the window, (try ensuring that no-one was underneath). The paper package split—but the non-woven one remained intact. The buyers were impressed.

The qualities of these envelopes which are made in all shapes and sizes are proving useful for a diverse range of applications—for example, high couture clothes are sent from Paris to Japan in large, tear-resistant envelopes. Another application is in mail packages for despatch to oil rigs in the North Sea.



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TO: Brian Searle, London DATE: 2nd April 1984

Brian,

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- Shawls
- Towels and
- Integrated wipes
- Garment interlinings
- Sanitary towel coverstock
- Low-flare display fabrics
- Disposable sheets and pillowcases
- Coasters
- Coating substrates
- Autoclave load-bar covers
- Quilting cloths
- Calendar books
- Wall coverings
- Melt filters
- Air filters
- Building insulation
- Loudspeaker bakings
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- Motor vehicle insulating panels
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- pipeline
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P.T.O.



Though their arguments would certainly be challenged by the nonwovens) by virtue of cotton producers, nonwoven manufacturers argue that the shift of cotton textile manufacture to the Third World, where most of the cotton crop is grown, has introduced political and economic uncertainties into the supply situation and will tend, over the long term, to lead to a greater use of nonwovens produced in the developed countries.

The qualities needed in these various products can be engineered in (without losing the cost advantages possessed by) the nonwoven by virtue of the relative simplicity of the manufacturing techniques involved. Thus, a product can be made to absorb very quickly across the whole of its surface where it is being used as a wipe, or it can attract moisture from its surface instantly, to be absorbed by a pad, where it is being used as a cover.

Its ability to perform in this way is a function of the fibres used—and these can vary from absorbent viscose (or even

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# NONWOVENS IV

The needs of very young children offer a market in which there is intense competition

## Multinational hardsell aimed at mothers

FOR ONE explanation of the five-fold growth in production of nonwovens across Europe since 1970, to the present consumption of more than 200,000 tonnes a year, it is necessary to look no further than the pages of women's magazines, particularly those aimed at mothers of very young children.

Each week within their covers these magazines have become the battleground where rival health-care groups, some of them very large multinationals, promote their various brands of disposable diaper.

By RHYS DAVID

In effect, a battle within a battle is going on. The switch to disposables started later in Europe, than in the U.S. where terry towelling has lost most of its market share, and there remains a large potential European market to be tapped.

Trying to win a share of this market are a number of indigenous groups in each of the different national markets on the one side, and on the other, big American groups, most notably Procter & Gamble which, on some estimates, has 25 per cent of the world disposable diaper market, through brands such as Pampers.

Each of these diapers consists of an absorbent interior covered by a nonwoven outer casing, specifically designed to allow moisture to pass one way only, and it is the market offered by the growth of this product which has played a major part in stimulating the large scale investment which has taken place in nonwoven production in recent years.

At the same time, the technology needed to promote a product which will perform well in such a demanding application has been used to good effect elsewhere. The problems of adult incontinence—likely to grow as the population structure of Europe ages—is now being tackled with the aid of nonwoven products.

Nonwovens have also been taking over in Europe—as in the U.S.—from traditional cotton-based products in medical and surgical applications. The product is being employed for surgeons' gowns, masks, drapes and tray covers and is beginning to be used as a replacement for cotton gauze.

Shift Apart from the established textile and paper companies which have sought to carve out a share of the market, other smaller groups have also been encouraged to try their hand by the ready availability of equipment, mainly from German manufacturers. Compared with the cost of installing a new paper line—perhaps £25m—entry into non-wovens comes cheap, at perhaps no more than £5m.

Machinery is, in fact, available nowadays off the shelf, making it possible for companies with no previous background in textiles or paper to become producers, a far cry from the early days of the industry when machinery development was led by the non-woven manufacturer himself, drawing on expertise from his core activity, to achieve the manufacturing performance he wanted.

As a result of all these factors there are now no fewer than 80 European manufacturers serving the market, concentrated in Germany, Britain, the

Netherlands, Belgium and France—and in the opinion of some observers, there is significant overcapacity.

According to Mr William Duncan, director of marketing for Europe of Kendall, in diaper-related products there is 30 per cent too much capacity. "Consumption is set to rise by six per cent a year, yet we have 12.15 per cent new capacity being put in. Something has to give," he says.

In part, the overcapacity is due to the enormous increases in the productive capacity of the machinery now available. In the late 1970s a coverstock line was likely to produce 50m sq metres a year, but today's machines—which have had a crippling effect on the economics of older machines—can run out 150m-200m sq metres a year. As a consequence, coverstock is becoming a buyers' market with prices falling by 25 per cent over the past six months.

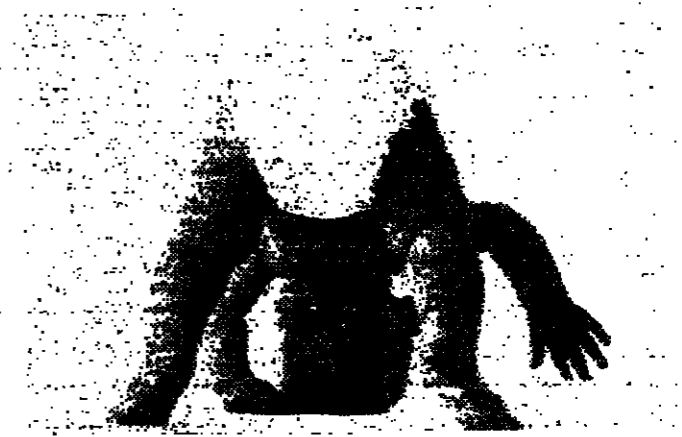
How the market in lightweight nonwovens will shake out in Europe is now the key question, and the main topic of interest within the industry generally. In the U.S., while there are a very large number of nonwoven companies, dominant share of the market is held by a relatively small number and a similar process could follow in Europe. Already, in 10 of most of the main end-uses is confined to about 15 companies.

The pattern that emerges is likely to be varied. There is likely to be a number of casualties, especially among some of the new entrants fighting to win a market share on prices alone, and elimination of older unprofitable lines. Other companies, including some of the larger groups, are likely to take shelter from competition in commodity areas by concentrating increasingly on high added-value areas such as medical/surgical uses.

The marketing effort which will be put behind these products could see a major acceleration in Europe away from the traditional hospital theatre and other equipment and a big increase in nonwoven usage in surgical operations. Kendall, Molnlycke, Chicopee (part of Johnson & Johnson) and Du Pont (whose interests in nonwovens extend from textiles to surgeons' masks) are all devoting more attention to this sector.

Big share Chicopee is no longer supplying coverstock to P & G in Europe, though it is still an important supplier to its U.S. factories. The company, which enjoyed a large share with Kendall of P & G's European business when the American soap giant started making its disposables in Europe, has concentrated its nonwoven production in the Netherlands. A factory in Postypool, in Wales, has been closed.

The big groups which are fully committed to nonwovens also hope to pull away from their smaller rivals by making full use of their technological and financial muscle, and through the close links they are able to establish with the big users of nonwovens. In the case of disposable



Coverstock items — which include disposable diapers — are among the best-established product areas for U.S. and European nonwovens manufacturers. They represent a high-volume, low-margin business

### Coverstock market moves into new areas

AMONG THE young, expanding markets for nonwovens, coverstock is already a "grand-dad" product. Scores of manufacturers in the U.S. and Europe pitched into coverstock over the last 10-15 years with the result that making and selling coverstock is now a mature, high-volume, low-margin business.

Coverstock is the thick, absorbent nonwoven material used in disposable diapers, feminine hygiene products and pads for incontinent adults. After rapid growth in the first area, manufacturers still in the coverstock business are now eyeing the second two areas as offering the best prospects for growth.

Feminine hygiene products are a \$1bn market in the U.S.; in the UK are around £110m at the retail level. Companies who market sanitary napkins spend heavily on advertising, making claims which have a direct bearing on coverstock manufacturer.

The precise character of the covering material on a sanitary napkin will have a big influence on the woman's perception of the product and her ultimate acceptance of it, according to manufacturers.

"This may be the most important thing we have to consider," said an executive with one of the major coverstock producers. "It may be the most important factor. The same is true for products aimed at incontinent adults."

Carla Rapoport

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QUEENS AWARD FOR EXPORTS 1981

Today's nonwovens are replacing traditional materials

## New applications in industry

NEW INDUSTRIAL uses for nonwovens are limited only by the imagination of the companies who dream them up. And dreaming has become big business for nonwoven producers who realise that high margins and fast-growing sales are the rewards for those who can be first with an innovative and useful new product.

Most companies are reluctant to discuss projects in the pipeline because competition is so fierce in new product development. Nonetheless, a number of new areas have been opening up in the last few years and these well illustrate the wide areas of application open to innovators of the future.

C. H. Dexter, a division of Dexter of the U.S. which invented teabag paper, devotes around 15 per cent of its personnel world-wide to technical research and development. "We have to get out of tradi-

NONWOVEN INDUSTRY—PRODUCTION BY END-USES				
	(In 1,000 tons)			
	1970	1975	1978	1981
Coverstock	8.0	24.2	38.2	46.7
Medical/Surgical	2.5	6.3	8.0	9.4
Bed and table linen	0.4	2.6	2.4	3.9
Wiping cloths	6.4	10.7	12.3	13.6
Apparel	0.6	0.3	1.2	1.5
Filtration	3.2	4.8	7.1	7.4
Interlinings	10.0	9.2	9.6	12.5
Decorative substrates	7.7	6.6	12.4	14.2
Decorative	0.9	2.1	1.5	2.5
Civil engineering/Building	—	10.9	18.9	32.8
Upholstery/Carpet underlays	—	—	—	23.0
Waddings/tea bags	1.1	22.1	25.7	13.9
Misc. and non identified	—	—	14.4	8.8
TOTAL	40.4	97.3	152.1	191.0

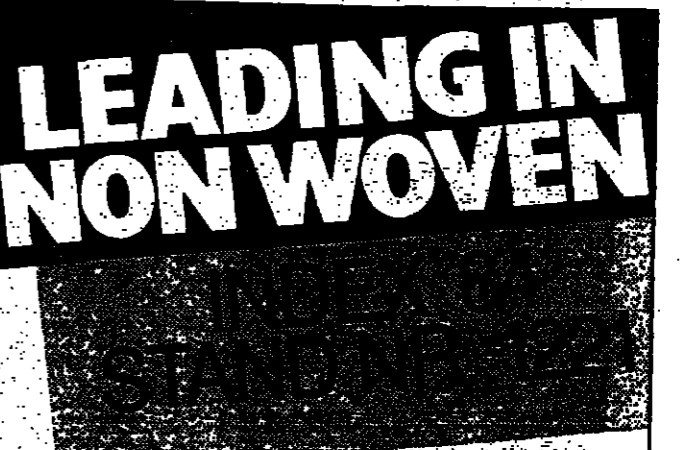
Source: EDANA

many influences, including water. Traditionally, cable has been wrapped in steel jackets but this process is expensive and not always adaptable to individual environments. Fire's cable wraps, made from nonwoven fibres, are water-expandable, allowing water into their own water-tight traps.

There has been a very long take-off period for this product, according to a Fire executive in Haryana. The company reckons that only one or two producers have entered this product area but competition is coming up fast.

Fire says that both the cable wrap and Coremat are now good commercial businesses, after long development periods. Many others are being developed he says.

"There must be new product applications in the pipeline, otherwise our existence is threatened," says Fire.



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# NONWOVENS V

Freudenberg widens its international network and sees great potential in China.

## Group expands operations in U.S. and Japan

MORE THAN 130 years ago, Carl Johann Freudenberg took over a small leather tannery in a valley at Weihen, not far from West Germany's old university town of Heidelberg. Today, the Freudenberg business is still family-owned, but has diversified its production, expanded its interests to North and South America, Asia and South Africa, and built up sales to DM 2.6bn a year.

Nonwovens, produced with advanced technology, provide much of the impetus for the group's continuing international expansion.

Freudenberg recently brought on stream a new spunbonded nonwovens factory in North Carolina, a joint venture with Kendall of the U.S. It has also been involved in nonwovens manufacturing in the U.S. for more than 30 years through its Fellen Corporation subsidiary.

### Co-operation

In Japan, too, Freudenberg is looking to further expansion in co-operation with its existing partner there, Dai Nippon. The companies have been discussing an operation to make spunbonded nonwovens. Co-operation with Japan goes back more than 20 years and Japanese businessmen and technicians have been coming frequently to the rustic setting of the West German group's headquarters.

Freudenberg's network of international nonwovens manufacture also includes operations in Canada, South Africa, Argentina, Spain and the UK, as well as a partnership venture in South Korea.

Herr Norbert Dahlström, who heads the nonwovens division, says the company is studying "blank spaces" on its world map, but cautiously points out that risks are involved in any such moves.

China figures in Freudenberg thoughts, but as a long-term prospect. "Ultimately, if one wants to participate in China, one will have to invest there in some way," says Herr Dahlström.

However, legal conditions, involving patents and divi-

dends, are still very uncertain, he points out. "There are thousands of unanswered questions. Even the Chinese themselves do not have all the answers. But we are keeping our ear close to the ground."

China is viewed not only as a great potential market for nonwovens—particularly if the Chinese begin to abandon uniform attire—but also as a possible base for exports.

Nonwovens have become an increasingly strong part of Freudenberg operations, which includes shoe production and retailing, output of seals and gaskets, and other technical products, including printed circuits.

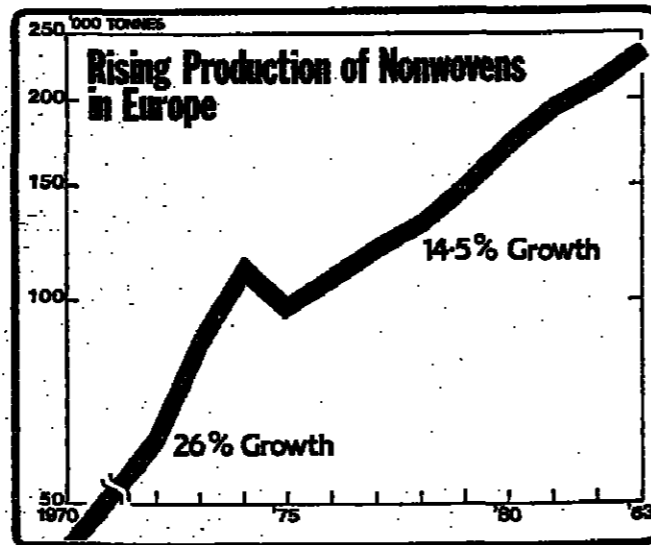
The sales revenue of DM 14.6bn from nonwovens last year made up 28 per cent of Freudenberg's total sales, compared with 24.5 per cent previously. Nonwovens' sales grew by 13.6 per cent, nearly twice as much as the 7 per cent growth of total group revenue.

The importance of nonwovens is even greater when the DM 382.4m revenue of the Japanese and South Korean joint venture operations—in which Freudenberg has a minority stake—is taken into account.

Profits of the business are not disclosed, but the company says that nonwovens make a more than proportionate contribution to earnings.

About 30 per cent of the nonwovens sales revenue comes from interlinings for the garment industry, about 20 per cent from medical and hygiene products, 25 per cent from home textiles in a wide sense—including backing for automobile carpets—and 25 per cent from industrial nonwovens, such as cable insulators and filter materials.

The Freudenberg group plans to invest about DM 170m in all operations this year, up from about DM 134m last year. Investment will be concentrated in the U.S. and in West Germany, where projects include a DM 25m polypropylene spunbond process line at the Lestrafel factory at Kaiserlautern.



A new staple fibre extrusion unit from James Macdill, of Belfast, Northern Ireland

Herr Dahlström also points out that the company—which claims a pioneer role in the development of nonwovens—spends heavily on research and development. The proportion of sales revenue spent on R and D is about six times as much as that of the textile industry.

### Confident

Fairly because of this emphasis on technological development, Herr Dahlström is confident in the face of such problems as potential overcapacity in some areas of the industry.

"We are in the process of creating monumental overcapacity in the hygiene market, because everybody in the U.S. and Europe is moving into it," he remarks. "Three or four manufacturers have established themselves in Europe in the past few years or are in the process of doing so." Paper companies, with their traditional products being displaced, are among those getting into nonwovens.

At the same time, the industry is facing a revolution in technology. "The technological trend is towards larger machines, wider and faster machines, with much higher output than previously, mainly in the disposable area. The capital cost is rocketing."

As a result of such pressures, many smaller businesses are likely to fall by the wayside, he believes.

Herr Dahlström disputes that nonwovens are operating everywhere in growth markets. Major sectors are already facing shrinking customer industries in some regions of the world. Other segments of the industry are, however, growing fast because they are replacing raw materials such as wovens and jute. "We have growth sec-

tors in roofing, geo-textiles, hygiene—disposable diapers—and in the medical field," he says.

Herr Dahlström believes that Freudenberg can face up to the problems ahead without any need to change the private nature of the company and open it up to investors from outside. Its own resources of capital and reserves make up some 35 per cent of its balance sheet total, a healthy financial position in comparison with many companies.

Freudenberg is entirely owned by 150 family members and is supervised by a committee of family representatives. Herr Dahlström is one of six partners who are responsible for the day-to-day management and who are personally liable to the full extent of their own fortunes. He is one of three outsiders brought in by the family in recent years to strengthen the professional management.

John Davies

### END-USES FOR NONWOVENS

Breakdown by end-uses (per cent)

	1970	1978	1981	1982
Coverstock	19.8	25.1	24.5	25.7
Medical/surgical	6.2	5.3	4.9	5.8
Bed and table linen	1.0	2.9	2.0	2.2
Wiping cloths	14.8	7.0	6.4	6.6
Apparel	1.5	0.8	0.8	1.6
Filtration	7.9	4.7	3.9	3.9
Interlinings	24.8	6.3	6.6	6.0
Coating substrates	19.0	8.1	7.4	6.8
Decorations	2.2	1.0	0.9	1.2
Civil engineering/building		12.4	17.2	17.9
Upholstery carpet underlays			12.0	11.3
Abrasives/tea bags	2.8	17.0	7.3	7.3
Waddings and bulky items			1.5	0.7
Miscellaneous and non-identified		9.4	4.6	4.6

Source: EDANA

## Kendall of the U.S. boosts manufacturing base in Europe Strong place in health care

THE VARIED nature of the participants in the nonwoven industry worldwide finds one illustration in the U.S.-based company, Kendall, of Boston, Mass.

Originally a cotton producer, Kendall moved a long time ago into health care and numbers among its diverse product range highly sophisticated diagnostic monitoring equipment. Its strong position in this sector and its upmarket image were among the attractions for Colgate-Palmolive—then anxious to expand beyond its soap and toothpaste base—when it acquired the company in 1972.

Kendall's health care interests have also remained, however, strong textiles orientation and it is one of the main suppliers of items such as surgical sponges, dressings, bandages, operating theatre gowns and other textiles to the U.S. medical market. It was one of the first companies to investigate the new technology of nonwovens and to develop a range of products.

Today it is one of the world's biggest producers of the product and a major supplier to America's other soap giant, Procter and Gamble (P and G), of coverstock—the fabric used in disposable diapers.

Unlike its main health care rival in the U.S., Johnson & Johnson, Kendall has traditionally not had a very high profile in Europe but over recent years it has sought to rectify this. The parent company decided in the mid-1970s that it was time to step up Kendall's presence in Europe, Latin America and Japan.

Major plants have been opened by the company to make nonwovens for coverstock in Belgium and for feminine hygiene products in the UK. "In the past few years we have sought to move the emphasis of manufacturing activities away from the U.S. in order to be sensitive to local needs," says Mr William Duncan, director of marketing for Europe. The company is now exporting back to the U.S., from its European plants.

Kendall's growth as a cover-



Mr William Duncan, European marketing director for Kendall, a major supplier of coverstock

stock supplier has been largely due to the very close links forged with P & G and an Europe it remains one of the company's principal suppliers. In the U.S., Colgate-Palmolive came out of disposable diapers after taking over Kendall to avoid a conflict of interest with P & G, but it makes and markets brands for Britain and France.

The company has invested heavily in Europe to make the new thermally bonded polypropylene coverstock which is expected to replace much of the resin-bonded material now on the market.

It is major technological developments of this sort, requiring large investment, which Kendall sees as eventually sorting out the weak from the strong in the European industry, where worries about overcapacity are now beginning to emerge.

Kendall is one of four big companies which are currently trying to get a study undertaken into the industry's capacity to establish an asset register. "Too many investment decisions have been taken without adequate information. What we want to

## Market breakthrough follows decreasing cost of nonwovens Swift move into the medical area

THE USE of nonwovens in hospitals around Europe is on the increase. The European distaste for disposables is slowly being outweighed by cost advantages and concern for the highest standard of hygiene possible.

For the companies supplying this sector, firm upward growth trends are appealing. So far, however, these increases have not provided a similar upward trend in profits as companies continue to scramble for market share in the expanding market for disposable medical supplies.

Medical nonwovens are worth about \$35m a year and represent about 8 per cent of the overall market for hospital drapes, gowns, sheets and other apparel. In America, sales of disposables have reached a hefty 57 per cent market share. But it has taken Europe about eight years to reach its current level of penetration and industry executives expect future growth to be more rapid.

"I think we will see an increase in sales of between 15 and 35 per cent per annum," says Mr Jean-Paul Francois, marketing manager for Dexter Europe, a division of Dexter of the U.S.

**Margins**

He says that the breakthrough is due to the decreasing cost of nonwovens, the increasing labour costs for laundering washable hospital linens, and the increasing psychological edge among young doctors who believe that disposables are more hygienic than traditional linen.

"Hospital nonwovens are one of the fastest growing parts of our business," says Mr Alan Grey, managing director (UK) of Bondina UK, part of the Freudenberg group of West Germany. The margins, he said cautiously, are "acceptable".

The swift move into the medical area has turned some items, like bed sheets, into commodities where high volumes can be guaranteed, but so can low margins. The companies specialising in this sector, as a

result, are looking to make their name in added-value products such as nonwoven fabrics which act and feel like linen as much as possible.

"We want the aesthetics of linen, we want to reproduce the drapability of linen, that's what everyone is targeting for. Bed sheets are a cut-throat market already, so is head-wear. There is nothing to be built in for higher value in these products," says Mr Francois.

To this end, Dexter has recently invested \$4m on updating its machinery at its factory in Brignod, France. According to Mr Joseph Day, president of Dexter, the group's medical nonwoven sales have tripled in the past three years and now represent about 25 per cent of the group's \$40m annual sales in Europe.

Two other major producers of medical nonwovens worldwide are Kimberly-Clark and Du Pont of the U.S. Du Pont has scored strong successes with its Tyvek surgical gowns. Du Pont also sponsored a clinical trial comparing infection rates in hospitals using its gowns as opposed to traditional fabrics. The disposables proved more effective.

Nonwovens are also finding good growth in areas such as wipers to clean patients as well as surfaces, bibs, dusters, overalls, mortuary cloths and shrouds. Further, non-woven wound dressing is finding increasing favour in hospitals.

Crowded as the field is, new competitors are eyeing the market. Bowater-Scott, a 50/50 UK joint venture between Bowater of the UK and Scott

Paper of the U.S., is currently testing products in the medical non-woven field. "We see this as an area of potential opportunity," provided we can convince the National Health Service of the value of disposables, says a Bowater-Scott executive.

The UK industry has a challenge ahead in terms of converting the NHS to disposables. This task will be tackled from both the hygiene point of view and the arguments of laundry costs. "The amount of capital tied up in laundry equipment is a barrier to using disposables," said one UK non-wovens executive. "But we see it only as a matter of time before Britain and the rest of Europe switches over to the widespread use seen in the U.S."

Carla Rapoport

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**MARKETING**

Kendall is one of the fastest growing subsidiaries of Colgate-Palmolive, we market specialized industrial nonwovens. Hospital products for patient and critical care and a broad range of consumer products worldwide. We employ 13,000 people and are reaching for a billion dollars in sales.

**RESEARCH & DEVELOPMENT**

Kendall believes in the importance of new products as well as the need for continual product improvement and the development of new uses for existing products to sustain its growth. Today the company's laboratories carry on a long tradition in their quest for superior non wovens.

**MANUFACTURING**

Kendall currently operates 26 plants. They produce nonwoven fabrics; bleach and blend cotton and man-made fibres; convert fabrics into packaged goods; and manufacture an ever increasing range of items for use in the demanding Hospital Product sector of the worlds market place.

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## NONWOVENS VI



### Manufacturers place a strong emphasis on research work

PRODUCTION of nonwovens (above, left) at Lantor's plant in Bolton, Lancashire. The company is among the leaders in the industry in the UK and, along with most of the companies within the British Nonwovens Manufacturers' Association can boast of new and complex machinery as part of their

policy of continuous technological advancement. Other members of the association include Bonded Fibre Fabric of Bridgwater, Somerset; Bondina, of Greatland, Halifax, Yorkshire; Bowater-Scott, textile replacement division of East London; Vernor-Carus of

Darwen, Lancs; C. H. Dexter of London; James R. Crompton, of Bury, Lancs; Johnson and Johnson of Slough, Bucks; Kimberly-Clark, of Maidstone, Kent; Reedbond, of London; and Wiggins Teape, Industrial paper division, of London. Another aspect of nonwoven production is seen above (centre), in Sweden

where Storalene nonwoven fabric forms the basis of roofing felts, manufactured by Matski.

Tests have shown that products such as Marolex roofing felts exhibit good elongation properties, water repellence, processability and better bitumen adhesion than,

for example, ordinary rag-felt material.

Above, right: the relatively easy installation in Stockholm, Sweden, of Isopal roofing results from the material's light weight and other properties, such as high tensile strength.

Energy-saving: other examples for nonwoven products in the house-building industry include Tyvek "housewrap" which is claimed to cut heat loss through walls by 33 per cent.

The sponbonded olefin from Du Pont is used as a sheathing around buildings and has properties that reduce cold air infiltration but

pass moisture vapour to prevent condensation. The manufacturers claim that Tyvek can be quickly installed at relatively low labour cost: two men can put out 1,800 sq ft in less than two hours, using only a knife and staple gun.

Michael Wiltshire

Diverse applications range from the reinforcement of river banks to the strengthening of airfield runways

## Geotextiles now the biggest growth area

WHEN THE golfing authorities chose the Geneva Golf Club to host the world amateur women's championship two years ago, the club was delighted. Twenty-six national teams of three players each would be playing the course, an accolade for any club.

Unfortunately, the groundsman had a problem which threatened the whole show. The bunker at the third hole drained particularly badly and others were difficult. If water lay in them during play it threatened the success of the tournament. Poor subsoil quality and an endemic course drainage problem had combined to cause intermingling of sand and subsoil.

### Solution

The answer to the problem was found in Du Pont's Typer, sponbonded polypropylene, a non-woven fibre sheet introduced in 1970 and widely used as a substrate or support membrane in construction projects, carpet backing, roof lining and packaging.

To solve the problem the surface sand in the bunker was removed and a plastic pipe drain laid on a bed of Typer and chippings. This was covered by sheets of Typer and the sand replaced.

The players were delighted; plugging in the bunker was avoided. The club was also delighted: the modification did away with the need for costly sand renewal.

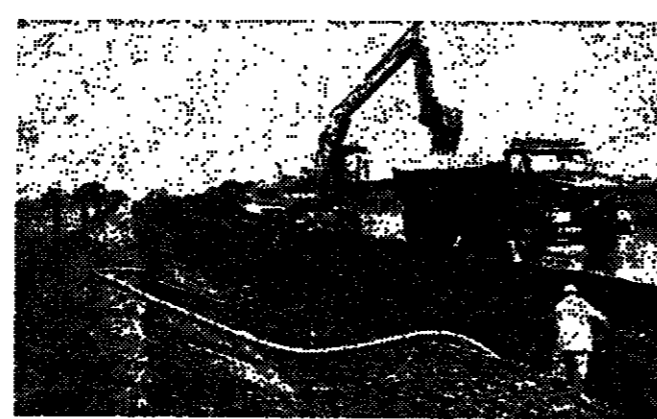
Further north, in Holland, the Government ran into problems where the Scheeldt, Ruine and Meuse flow into the sea through flooding. In 1953 the dikes failed and 1,800 people died.

To avoid another such tragedy a decision was taken to close four of the country's most valuable estuaries and by the time three had been shut it became evident that permanent flood protection was causing environmental problems.

The answer was to instal a semipermeable dam system in which mattresses of Typer cover a large part of the seabed on both sides of barrier piers. This significantly increases the load-bearing capacity of subsoils.

The advantage of this sponbonded polypropylene is not just its weight it will hold but also its permeability. As in the golf club's bunker the permeability allows for filtration while holding layers of different materials in place.

As a result, this nonwoven, and others like it from different producers, are being increasingly used in the field of geotextiles. They reinforce air-



In Sweden (left) more than 800 km of Wavin drainage pipes were laid alongside roads within 18 months. The corrugated pvc pipes are jacketed with a protective fabric of Du Pont's Typer sponbonded polypropylene. In Dubai, ICI's Terram 70 was installed to help protect the sandstone bedrock of the massive Port Rashid project

port runways, sports fields, car parks, and support river banks and drainage systems.

In Europe Du Pont's Typer competes mainly against ICI's Terram and the French group, Rhone-Poulenc's Bidim. Output by all three companies is broadly comparable, though the American company has a higher proportion of its production in non-civil engineering activities, such as roofing and insulation than its two European-owned rivals.

The use of non-wovens in civil engineering originated in Europe and it remains the main centre for the product's development. In the U.S. woven fabrics have traditionally enjoyed a bigger share of the market.

The most significant reason for the product's growth has been the steady progression in the range and quality of applications.

Initially, in the early 1970s, it was used mainly on construction sites to prevent vehicles churning up temporary road surfaces in wet conditions, and

was removed on completion of operations. The past 10 years have seen it become an integral part of the civil engineering and building process and its uses have extended from major projects to domestic housing.

The problems it can solve have also become no less varied. These now include highway drainage, where geotextiles are often buried under topsoil on roadside verges and over drainage stones. Previously to deal adequately with the volume of

water coming off road surfaces, it was necessary to place the drainage stones on the surface. The danger here was that the stones could be propelled on to the carriageway by grasscutting machines or cars pulling off the road.

Other applications are docks and harbours, where non-wovens can help to prevent loss of ballast from under concrete slabs; unsurfaced and surfaced roads, including farm roads and even garden paths. According to Mr I. R. Clough, commercial

manager of ICI Fibres' geotextiles group, these applications where geotextiles form part of the overall product specification now account for as much as 80-90 per cent of material used.

Trends now taking place within the geotextiles sector include a move to lightweight products as manufacturers find ways of increasing the performance of their fabrics at lower weights.

### New areas

ICI Fibres itself is using this move to lighter weights to back a new push into other product areas, such as roofing, where it has a specialist flat-roofing product Roofstat, used in conjunction with polystyrene insulation blocks in buildings in very warm and very cold countries.

Fibre usage has yet to take on a common pattern. Du Pont's Typer is a polypropylene, while ICI uses a 70 per cent polypropylene 30 per cent polyethylene combination. Though it is vulnerable to ultraviolet degradation, this is not a major problem in a product which is likely to be buried, and it has the advantage of being chemically inert and therefore resistant to rotting and ageing.

Rhone-Poulenc, however, has committed itself to polyester, which it claims has advantages over polypropylene in strength, resistance to temperature and light and in other properties.

### Higher production

Within western Europe production of nonwovens for civil engineering and building purposes, which to all intents is the geotextiles field, has risen from some 10,900 tonnes in 1975 to 37,700 tonnes in 1982. This is now the second most important end use of nonwovens (after coverstock) and accounts for 17.9 per cent of total usage.

Nonwoven geotextiles have been an important export, especially to Eastern Europe and the Middle East, in this time and the above average growth in overseas sales is expected to continue.

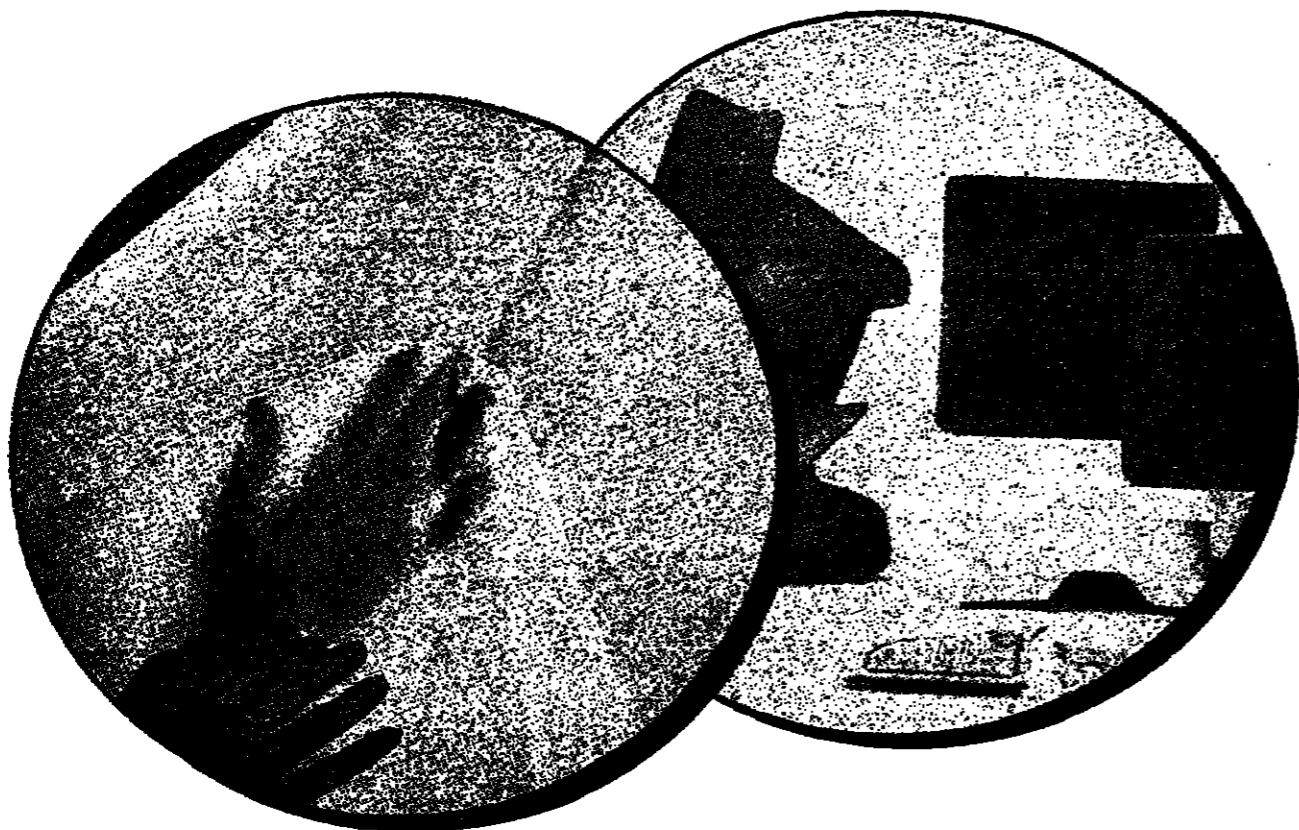
Edana believes that although there may be some slow-down in use of geotextiles for the largest engineering undertakings as government funding runs down, this should be counter-balanced by an increase in the use of the products in smaller scale construction and repair work.

Anthony Moreton and Rhys David

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Please advise name, address, (company)



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## Fairs and Exhibitions in Geneva

### 1984

- April 6 - 15 12th International Exhibition of Inventions and New Techniques  
with Spemac - International exhibition of special technologies
- May 5 International Car Model Exchange
- May 9 - 12 Hospitec-Medelec 84 - International exhibition of the hospital and medical industries - with conferences
- May 22 - 25 Sitev 84 - 11th international exhibition for the suppliers of the vehicle industry - with conferences
- July 15 - 18 "Fossil Fuels of Europe" - Conference and exhibition of the American Association of Petroleum Geologists
- Sept. 4 - 7 Burexpo 84 - Exhibition for Informatics, Bureautics and Office Equipment
- Oct. 2 - 5 Emergency 84 - International congress and exhibition for emergency, disaster preparedness and relief
- Oct. 2 - 5 Medico-Air 84 - International medical aviation exhibition - with conferences
- Oct. 10 - 14 Art & Design Expo - International art and design exhibition
- Oct. 12 - 17 Edexpo 84 - 1st International Forum for the World of Education
- Oct. 17 - 19 Esso 84 - 2nd Congress of the European Society of Surgical Oncology - with exhibition
- Nov. 7 - 18 32nd Ideal Home Exhibition
- Nov. 28 - December 2 12th Geneva Antiques Fair

### 1985

- Feb. 1 - 10 7th International Boat Show
- March 7 - 17 55th International Motor Show
- April 19 - 28 13th International Exhibition of Inventions and New Techniques  
with Spemac - International exhibition of special technologies

(subject to alterations)

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